PUBLIC HEALTH SERVICE

PATENT LICENSE-NON-EXCLUSIVE

This **Agreement** is based on the model Patent License Non-exclusive Agreement adopted by the U.S. Public Health Service ("**PHS**") Technology Transfer Policy Board for use by components of the National Institutes of Health ("**NIH**"), the Centers for Disease Control and Prevention ("**CDC**"), and the Food and Drug Administration ("FDA"), which are agencies of the **PHS** within the Department of Health and Human Services ("**HHS**").

This Cover Page identifies the Parties to this **Agreement**:

The U.S. Department of Health and Human Services, as represented by
National Institute of Allergy and Infectious Diseases
an Institute or Center (hereinafter referred to as the "**NIAID**") of the
National Institutes of Health

and

Ridgeback Biotherapeutics LP
hereinafter referred to as the "**Licensee**",
having offices at 3162 Commodore Plaza, #3E, Miami, FL 33133,
created and operating under the laws of the State of Delaware.
Tax ID No.: 83-2164075

For the **NIAID** internal use only:

License Number: L-028-2019-0
License Application Number: A-362-2018

Serial Number(s) of Licensed Patent(s) or Patent Application(s):

NIH Ref. Nos. E-278-2016/0, 1, 2, titled "Antibodies that Neutralize Ebola Virus and Uses Thereof", by Lanzavechia and Sullivan et al. (NIAID/VRC):

- U.S. Provisional Patent Application 62/080,094, filed 14 November 2014
- PCT/IB2015/002342 (published as WO/2016/075546), filed 13 November 2015

NIH Ref. Nos. E-045-2015/0, 1, 2 ,3 ,4, titled "Neutralizing Antibodies to Ebolavirus Glycoprotein and Their Use", by Sullivan et al. (NIAID/VRC):

- U.S. Provisional Patent Application 62/087,087, filed 03 December 2014
- PCT/US2015/060733 (published as WO2016077789), filed 13 November 2015
- US Patent Application 15/526,661, filed 12 May 2017
- EP Patent Application 15797815.6, filed 12 May 2017

Licensee: Ridgeback Biotherapeutics LP

Cooperative Research and Development Agreement (CRADA) Number (if a subject invention): N/A

Additional Remarks:

- Inter-Institutional Agreement (L-136-2017/L-143-2017) - NIAID Lead between NIAID, the Institute of Research in Biomedicine (IRB) and Humabs BioMed SA (Humabs) for intellectual property claiming Ebola monoclonal antibodies developed under an RCA between IRB and NIAID (b)(4) and as described in **NIH** Ref. Nos. E-278-2016 and E-045-2015.

- Inter-Institutional Agreement (L-171-2018) - NIAID Lead between NIAID, USAMRIID for intellectual property claiming Ebola monoclonal antibodies as described **NIH** Ref. Nos. E-278-2016 and E-045-2015.

Public Benefit(s): Development of neutralizing monoclonal antibodies against Ebolavirus glycoprotein directed against Ebola virus infections and disease in mammals.

This Patent License Agreement, hereinafter referred to as the "**Agreement**", consists of the following:
a Cover Page
an attached **Agreement**
a Signature Page
Appendix A (List of Patent(s) or Patent Application(s))
Appendix B (Licensed Materials)
Appendix C (Fields of Use and Territory)
Appendix D (Royalties)
Appendix E ((Benchmarks and Performance)
Appendix F (Commercial Development Plan)
Appendix G (Example Royalty Report)
Appendix H (Royalty Payment Options)

The **NIAID** and the **Licensee** agree as follows:

1. BACKGROUND

1.1 In the course of conducting biomedical and behavioral research, the **NIAID** investigators made inventions that may have commercial applicability.

1.2 By assignment of rights from the **NIAID** employees and other inventors, **HHS**, on behalf of the **Government**, owns intellectual property rights claimed in any United States or foreign patent applications or patents corresponding to the assigned inventions. **HHS** also owns any tangible embodiments of these inventions actually reduced to practice by the **NIAID**.

1.3 The Secretary of **HHS** has delegated to the **NIAID** the authority to enter into this **Agreement** for the licensing of rights to these inventions under 35 U.S.C. §§200-212, the Federal Technology Transfer Act of 1986, 15 U.S.C. §3710(a), and the regulations governing the licensing of Government-owned inventions, 37 C.F.R. Part 404.

1.4 The **NIAID** desires to transfer these inventions to the private sector through commercialization licenses to facilitate the commercial development of products and processes for public use and benefit.

1.5 The **Licensee** desires to acquire commercialization rights to certain of these inventions in order to develop processes, methods, or marketable products for public use and benefit.

1.6 (b)(4)

2. DEFINITIONS

2.1 "**Affiliate(s)**" means a corporation or other business entity, which directly or indirectly is controlled by or controls, or is under common control with the **Licensee**. For this purpose, the term "control" shall mean ownership of more than fifty percent (50%) of the voting stock or other ownership interest of the corporation or other business entity, or the power to elect or appoint more than fifty percent (50%) of the members of the governing body of the corporation or other business entity.

2.2 "**Benchmarks**" mean the performance milestones that are set forth in Appendix E.

2.3 (b)(4)

2.4 "**Commercial CGMP Biomanufacturing Facility**" means a biologics manufacturing facility that has the ability to scale up mAb114 manufacturing to (b)(4) in a facility that (b)(4)

2.5 **"CGMP"** means the Current Good Manufacturing Practice regulations enforced by the FDA. CGMPs provide for systems that assure proper design, monitoring, and control of manufacturing processes and facilities. Adherence to the CGMP regulations assures the identity, strength, quality, and purity of drug products by requiring that manufacturers of medications adequately control manufacturing operations. This includes establishing strong quality management systems, obtaining appropriate quality raw materials, establishing robust operating procedures, detecting and investigating product quality deviations, and maintaining reliable testing laboratories.

2.6 **"Commercial Development Plan"** means the written commercialization plan attached as Appendix F.

2.7 **"First Commercial Sale"** means the initial transfer by or on behalf of the **Licensee** of **Licensed Products** or the initial practice of a **Licensed Process** by or on behalf of the **Licensee** in exchange for cash or some equivalent to which value can be assigned for the purpose of determining **Net Sales**.

2.8 **"FDA"** means the Food and Drug Administration.

2.9 **"Government"** means the Government of the United States of America.

2.10 (b)(4)

2.11 (b)(4)

2.12 **"Licensed Fields of Use"** means the fields of use identified in Appendix C.

2.13 **"Licensed** (b)(4)

2.14 (b)(4)

2.15 (b)(4) **Patent** (b)(4) applications (including provisional patent applications and PCT patent applications) or patents listed in Appendix A, all (b)(4) and continuations of these applications, (b)(4)
(b)(4)
(b)(4) patents issuing from these applications, divisionals, and continuations, and any reissues, reexaminations, and extensions of all these patents.

2.16 **"Licensed Processes"** means processes, which in the course of being practiced, would be within the scope of one or more claims of the **Licensed Patent Rights** that have not been held unpatentable, invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

2.17 **"Licensed Products"** means (b)(4) tangible materials, which in the course of manufacture, use, sale, or importation, would be within the scope of one or more claims of the **Licensed Patent Rights** that have not been held unpatentable, invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

2.18 **"Licensed Territory"** means the geographical area identified in Appendix C.

2.19 (b)(4)

2.20 **"NDA"** means a New Drug Application, Biologics License Application, Worldwide Marketing Application, Marketing Authorization Application, filing pursuant to Section 510(k) of the Food, Drug, and Cosmetic Act or similar application or submission for Marketing Authorization of Licensed Products filed with a Regulatory Authority to obtain marketing approval for a biological, pharmaceutical or diagnostic product in that country or in that group of countries.

2.21 **"Net Sales"** means the total gross receipts for sales of **Licensed Products** or practice of **Licensed Processes** by or on behalf of the **Licensee**, and from leasing, renting, or otherwise making **Licensed Products** available to others without sale or other dispositions, whether invoiced or not, less returns and allowances, packing costs, insurance costs, freight out, taxes or excise duties imposed on the transaction (if separately invoiced), and wholesaler and cash discounts in amounts customary in the trade to the extent actually granted. No deductions shall be made for commissions paid to individuals, whether they are with independent sales agencies or regularly employed by the **Licensee**, and on its payroll, or for the cost of collections.

2.22 (b)(4)

2.23 (b)(4)

2.24 (b)(4)

2.25 **"Practical Application"** means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and in each case, under these conditions as to establish that the invention is being utilized and that its benefits are to the extent permitted by law or **Government** regulations available to the public on reasonable terms.

2.26 (b)(4)

2.27 (b)(4)

2.28 (b)(4)

2.29 (b)(4)

2.30 (b)(4)

2.31 **"US Government Entity"** shall mean any Federal, state or municipal government, or government agency, including the Biomedical Advanced Research and Development Authority, Department of Defense and Centers for Disease Control and Prevention in the US.

2.32 (b)(4)

3. GRANT OF RIGHTS

3.1 The **NIAID** hereby grants and the **Licensee** accepts, subject to the terms and conditions of this **Agreement**, a nonexclusive license under the **Licensed Patent Rights** in the **Licensed Territory** to make and have made, to use and have used, to sell and have sold, to offer to sell, and to import any **Licensed Products** in the **Licensed Fields of Use** and to practice and have practiced any **Licensed Processes** in the **Licensed Fields of Use**.

3.2 (b)(4)

3.3 (b)(4)

4. SUBLICENSING

4.1 The **Licensee** has no right to sublicense.

5. STATUTORY AND NIH REQUIREMENTS AND RESERVED GOVERNMENT RIGHTS

5.1 Prior to the **First Commercial Sale**, the **Licensee** agrees to provide the **NIAID** with reasonable quantities of **Licensed Products** or materials made through the **Licensed Processes** for **NIAID** research use.

5.2 The **Licensee** agrees that products used or sold in the United States embodying **Licensed Products** or produced through use of **Licensed Processes** shall be manufactured substantially in the United States, unless a written waiver is obtained in advance from the **NIAID**.

6. ROYALTIES AND REIMBURSEMENT

6.1 The **Licensee** agrees to pay the **NIAID** a non-creditable, non-refundable license issue royalty as set forth in Appendix (b)(4)

6.2 The **Licensee** agrees to pay the **NIAID** a minimum annual royalty as set forth in Appendix (b)(4)

6.3 The **Licensee** agrees to pay the **NIAID** earned royalties as set forth in Appendix (b)(4)

6.4 The **Licensee** agrees to pay the **NIAID** benchmark royalties as set forth in Appendix (b)(4)

6.5 A patent or patent application licensed under this **Agreement** shall cease to fall within the **Licensed Patent Rights** for the purpose of computing earned royalty payments in any given country on the earliest of the dates that:

(a) the application has been abandoned and not continued;

(b) the patent expires or irrevocably lapses; or

(c) the patent has been held to be invalid or unenforceable by an unappealed or unappealable decision of a court of competent jurisdiction or administrative agency.

6.6 No multiple royalties shall be payable because any **Licensed Products** or **Licensed Processes** are covered by more than one of the **Licensed Patent Rights**.

6.7 On sales of **Licensed Products** by the **Licensee** made in other than an arms-length transaction, the value of the **Net Sales** attributed under this Article 6 to this transaction shall be that which would have been received in an arms-length transaction, based on sales of like quantity and quality products on or about the time of this transaction.

6.8 With regard to unreimbursed expenses associated with the preparation, filing, prosecution, and maintenance of all patent applications and patents included within the **Licensed Patent Rights** and paid by the **NIAID** prior to the effective date of this **Agreement**, the **Licensee** (b)(4)
(b)(4)

6.9 (b)(4)

(a) to pay the **NIAID** on an annual basis, within sixty (60) days of the **NIAID's** submission of a statement and request for payment, a royalty amount equivalent to these unreimbursed expenses paid during the previous calendar year(s);

(b) to pay these unreimbursed expenses directly to the law firm employed by the **NIAID** to handle these functions. However, in this event, the **NIAID** and not the **Licensee** shall be the client of the law firm; or

(c) under exceptional circumstances, the **Licensee** may be given the right to assume responsibility for the preparation, filing, prosecution, or maintenance of any patent application or patent included with the **Licensed Patent Rights**. In that event, the **Licensee** shall directly pay the attorneys or agents engaged to prepare, file, prosecute, or maintain these patent applications or patents and shall provide the **NIAID** with copies of each invoice associated with these services as well as documentation that these invoices have been paid.

6.10 The **NIAID** agrees, upon written request, to provide the **Licensee** with summaries of patent prosecution invoices for which the **NIAID** has requested payment from the **Licensee** under Paragraphs 6.8 and 6.9. The **Licensee** agrees that all information provided by the **NIAID** related to patent prosecution costs shall be treated as confidential commercial information and shall not be released to a third party except as required by law or a court of competent jurisdiction.

6.11 The **Licensee** may elect to surrender its rights in any country of the **Licensed Territory** under any of the **Licensed Patent Rights** upon sixty (60) days written notice to the **NIAID** and owe no payment obligation under Paragraph 6.9 for patent-related expenses paid in that country after the effective date of the written notice.

(b)(4)

7. PATENT FILING, PROSECUTION, AND MAINTENANCE

7.1 The **NIAID** agrees to take responsibility for the preparation, filing, prosecution, and maintenance of any and all patent applications or patents included in the **Licensed Patent Rights**.

8. RECORD KEEPING

8.1 The **Licensee** agrees to keep accurate and correct records of **Licensed Products** made, used, sold, or imported and **Licensed Processes** practiced under this **Agreement** appropriate to determine the amount of royalties due the **NIAID**. These records shall be retained for at least five (5) years following a given reporting period and shall be available during normal business hours for inspection, at the expense of the **NIAID**, by an accountant or other designated auditor selected by the **NIAID** for the sole purpose of verifying reports and royalty payments hereunder. The accountant or auditor shall only disclose to the **NIAID** information relating to the accuracy of reports and royalty payments made under this **Agreement**. If an inspection shows an underreporting or underpayment in excess of five percent (5%) for any twelve (12) month period, then the **Licensee** shall reimburse the **NIAID** for the cost of the inspection at the time the **Licensee** pays the unreported royalties, including any additional royalties as required by Paragraph 9.7. All royalty payments required under this Paragraph shall be due within sixty (60) days of the date the **NIAID** provides the **Licensee** notice of the payment due.

9. REPORTS ON PROGRESS, BENCHMARKS, SALES, AND PAYMENTS

9.1 Prior to signing this **Agreement**, the **Licensee** has provided the **NIAID** with the **Commercial Development Plan** in Appendix F, under which the **Licensee** intends to bring the subject matter of the **Licensed Patent Rights** to the point of **Practical Application**. This **Commercial Development Plan** is hereby incorporated by reference into this **Agreement**. Based on this plan, performance **Benchmarks** are determined as specified in Appendix (b)(4)

9.2 The **Licensee** shall provide written annual reports on its product development progress or efforts to commercialize under the **Commercial Development Plan** for each of the **Licensed Fields of Use** within sixty (60) days after December 31 of each calendar year. These progress reports shall include, but not be limited to: progress on research and development, status of applications for regulatory approvals, manufacture, marketing, importing, and sales during the preceding calendar year, as well as, plans for the present calendar year. The **NIAID** also encourages these reports to include information on any of the **Licensee's** public service activities that relate to the **Licensed Patent Rights**. If reported progress differs from that projected in the **Commercial Development Plan** and **Benchmarks**, the **Licensee** shall explain the reasons for such differences. In any annual report, the **Licensee** may propose amendments to the **Commercial Development Plan**, acceptance of which by the **NIAID** may not be denied unreasonably. The **Licensee** agrees to provide any additional information reasonably required by the **NIAID** to evaluate the **Licensee's** performance under this **Agreement**. The **Licensee** may amend the **Benchmarks** at any time upon written approval by the **NIAID**. The **NIAID** shall not unreasonably withhold approval of any request of the **Licensee** to extend the time periods of this schedule if the request is supported by a reasonable showing by the **Licensee** of diligence in its performance under the **Commercial Development Plan** and toward bringing the **Licensed Products** to the point of **Practical Application**.

9.3 The **Licensee** shall report to the **NIAID** the dates for achieving **Benchmarks** specified in Appendix (b) and the **First Commercial Sale** in each country in the **Licensed Territory** within thirty (30) days of such occurrences.

9.4 The **Licensee** shall submit to the **NIAID**, within sixty (60) days after each calendar half-year ending June 30 and December 31, a royalty report, as described in the example in Appendix (b) setting forth for the preceding half-year period the amount of the **Licensed Products** sold or **Licensed Processes** practiced by or on behalf of the **Licensee** in each country within the **Licensed Territory**, the **Net Sales**, and the amount of royalty accordingly due. With each royalty report, the **Licensee** shall submit payment of earned royalties due. If no earned royalties are due to the **NIAID** for any reporting period, the written report shall so state. The royalty report shall be certified as correct by an authorized officer of the **Licensee** and shall include a detailed listing of all deductions made under Paragraph 2.12 to determine **Net Sales** made under Article 6 to determine royalties due.

9.5 Royalties due under Article 6 shall be paid in U.S. dollars and payment options are listed in Appendix (b)(For conversion of foreign currency to U.S. dollars, the conversion rate shall be the New York foreign exchange rate quoted in *The Wall Street Journal* on the day that the payment is due, and any loss of exchange, value, taxes, or other expenses incurred in the transfer or conversion to U.S. dollars shall be paid entirely by the **Licensee**. The royalty report required by Paragraph 9.4 shall be mailed to the **NIAID** at its address for **Agreement** Notices indicated on the Signature Page.

9.6 The **Licensee** shall be solely responsible for determining if any tax on royalty income is owed outside the United States and shall pay this tax and be responsible for all filings with appropriate agencies of foreign governments.

9.7 Additional royalties may be assessed by the **NIAID** on any payment that is more than ninety (90) days overdue at the rate of one percent (1%) per month. This one percent (1%) per month rate may be applied retroactively from the original due date until the date of receipt by the **NIAID** of the overdue payment and additional royalties. The payment of any additional royalties shall not prevent the **NIAID** from exercising any other rights it may have as a consequence of the lateness of any payment.

9.8 All plans and reports required by this Article 9 and marked "confidential" by the **Licensee** shall, to the extent permitted by law, be treated by the **NIAID** as commercial and financial information obtained from a person and as privileged and confidential, and any proposed disclosure of these records by the **NIAID** under the Freedom of Information Act (FOIA), 5 U.S.C. §552 shall be subject to the predisclosure notification requirements of 45 C.F.R. §5.65(d).

10. PERFORMANCE

10.1 The **Licensee** shall use its reasonable commercial efforts to bring the **Licensed Products** and **Licensed Processes** to **Practical Application**. "Reasonable commercial efforts" for the purposes of this provision shall include adherence to the **Commercial Development Plan** in Appendix F and performance of the **Benchmarks** in Appendix E.

10.2 Upon the **First Commercial Sale**, until the expiration or termination of this **Agreement**, the **Licensee** shall use its reasonable commercial efforts to make **Licensed Products** and **Licensed Processes** reasonably accessible to the United States public.

10.3 The **Licensee** agrees, after its **First Commercial Sale,** to make reasonable quantities of **Licensed Products** or materials produced through the use of **Licensed Processes** available

(b)(4)

10.4 The **Licensee** agrees, after its **First Commercial Sale** and as part of its marketing and product promotion, to develop educational materials (e.g., brochures, website, etc.) directed to patients and physicians detailing the **Licensed Products** or medical aspects of the prophylactic and therapeutic uses of the **Licensed Products**.

10.5 The **Licensee** agrees to supply, to the Mailing Address for **Agreement** Notices indicated on the Signature Page, the Office of Technology Transfer, the **NIH** with inert samples of the **Licensed Products** or **Licensed Processes** or their packaging for educational and display purposes only.

11. INFRINGEMENT AND PATENT ENFORCEMENT

11.1 The **NIAID** and the **Licensee** agree to notify each other promptly of each infringement or possible infringement of the **Licensed Patent Rights**, as well as, any facts which may affect the validity, scope, or enforceability of the **Licensed Patent Rights** of which either Party becomes aware.

11.2 In the event that a declaratory judgment action alleging invalidity of any of the **Licensed Patent Rights** shall be brought against the **NIAID**, the **NIAID** agrees to notify the **Licensee** that an action alleging invalidity has been brought. The **NIAID** does not represent that it shall commence legal action to defend against a declaratory action alleging invalidity. The **Licensee** shall take no action to compel the **Government** either to initiate or to join in any declaratory judgment action. Should the **Government** be made a party to any suit by motion or any other action of the **Licensee**, the **Licensee** shall reimburse the **Government** for any costs, expenses, or fees, which the **Government** incurs as a result of the motion or other action. Upon the **Licensee's** payment of all costs incurred by the **Government** as a result of the **Licensee's** joinder motion or other action, these actions by the **Licensee** shall not be considered a default in the performance of any material obligation under this **Agreement**.

12. NEGATION OF WARRANTIES AND INDEMNIFICATION

12.1 The **NIAID** offers no warranties other than those specified in Article 1.

12.2 The **NIAID** does not warrant the validity of the **Licensed Patent Rights** and makes no representations whatsoever with regard to the scope of the **Licensed Patent Rights**, or that the **Licensed Patent Rights** may be exploited without infringing other patents or other intellectual property rights of third parties.

12.3 THE **NIAID** MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY SUBJECT MATTER DEFINED BY THE CLAIMS OF THE **LICENSED PATENT RIGHTS** OR TANGIBLE MATERIALS RELATED THERETO.

12.4 The **NIAID** does not represent that it shall commence legal actions against third parties infringing the **Licensed Patent Rights**.

12.5 The **Licensee** shall indemnify and hold the **NIAID**, its employees, students, fellows, agents, and consultants harmless from and against all liability, demands, damages, expenses, and losses, including but not limited to death, personal injury, illness, or property damage in connection with or arising out of:

(a) the use by or on behalf of the **Licensee**, its directors, employees, or third parties of any **Licensed Patent Rights**; or

(b) the design, manufacture, distribution, or use of any **Licensed Products, Licensed Processes** or materials by the **Licensee**, or other products or processes developed in connection with or arising out of the **Licensed Patent Rights**.

12.6 The **Licensee** agrees to maintain a liability insurance program consistent with sound business practice.

13. TERM, TERMINATION, AND MODIFICATION OF RIGHTS

13.1 This **Agreement** is effective when signed by all parties, unless the provisions of Paragraph 14.15 are not fulfilled, and shall extend (b)(4) to the (b)(4) expiration of the last to expire of the **Licensed Patent Rights** unless sooner terminated as provided in this Article 13.

13.2 In the event that the **Licensee** is in default in the performance of any material obligations under this **Agreement**, including but not limited to the obligations listed in Paragraph 13.5, and if the default has not been remedied within ninety (90) days after the date of notice in writing of the default, the **NIAID** may terminate this **Agreement** by written notice and pursue outstanding royalties owed through procedures provided by the Federal Debt Collection Act.

13.3 In the event that the **Licensee** becomes insolvent, files a petition in bankruptcy, has such a petition filed against it, determines to file a petition in bankruptcy, or receives notice of a third party's intention to file an involuntary petition in bankruptcy, the **Licensee** shall immediately notify the **NIAID** in writing.

13.4 The **Licensee** shall have a unilateral right to terminate this **Agreement** in any country or territory by giving the **NIAID** sixty (60) days written notice to that effect.

13.5 The **NIAID** shall specifically have the right to terminate or modify, at its option, this **Agreement**, if the **NIAID** determines that the **Licensee**:

(a) is not executing the **Commercial Development Plan** submitted with its request for a license and the **Licensee** cannot otherwise demonstrate to the **NIAID's** satisfaction that the **Licensee** has taken, or can be expected to take within a reasonable time, effective steps to achieve **Practical Application** of the **Licensed Products** or **Licensed Processes**;

(b) has not achieved the **Benchmarks** as may be modified under Paragraph 9.2;

(c) has willfully made a false statement of, or willfully omitted, a material fact in the license application or in any report required by this **Agreement**;

(d) has committed a material breach of a covenant or agreement contained in this **Agreement**;

(e) is not keeping **Licensed Products** or **Licensed Processes** reasonably available to the public after commercial use commences;

(f) cannot reasonably satisfy unmet health and safety needs; or

(g) cannot reasonably justify a failure to comply with the domestic production requirement of Paragraph 5.2, unless waived.

13.6 In making the determination referenced in Paragraph 13.5, the **NIAID** shall take into account the normal course of such commercial development programs conducted with sound and reasonable business practices and judgment and the annual reports submitted by the **Licensee** under Paragraph 9.2. Prior to invoking termination or modification of this **Agreement** under Paragraph 13.5, the **NIAID** shall give written notice to the **Licensee** providing the **Licensee** specific notice of, and a ninety (90) day opportunity to respond to, the **NIAID's** concerns as to the items referenced in 13.5(a)-13.5(g). If the **Licensee** fails to alleviate the **NIAID's** concerns as to the items referenced in 13.5(a)-13.5(g) or fails to initiate corrective action to the **NIAID's** satisfaction, the **NIAID** may terminate this **Agreement**.

13.7 The **NIAID** reserves the right according to 35 U.S.C. §209(d)(3) to terminate or modify this **Agreement** if it is determined that the action is necessary to meet the requirements for public use specified by federal regulations issued after the date of the license and these requirements are not reasonably satisfied by the **Licensee**.

13.8 Within thirty (30) days of receipt of written notice of the **NIAID's** unilateral decision to modify or terminate this **Agreement**, the **Licensee** may, consistent with the provisions of 37 C.F.R. §404.11, appeal the decision by written submission to the designated the **NIAID** official. The decision of the designated **NIAID** official shall be the final agency decision. The **Licensee** may thereafter exercise any and all administrative or judicial remedies that may be available.

13.9 Within ninety (90) days of expiration or termination of this **Agreement** under this Article 13, a final report shall be submitted by the **Licensee**. Any royalty payments, including those incurred but not yet paid (such as the full minimum annual royalty), and those related to patent expense, due to the **NIAID** shall become immediately due and payable upon termination or expiration. Unless otherwise specifically provided for under this **Agreement**, upon termination or expiration of this **Agreement**, the **Licensee** shall return all **Licensed Products** or other materials included within the **Licensed Patent Rights** to the **NIAID** (b)(4) (b)(4) if the final reporting requirement is not fulfilled.

14. GENERAL PROVISIONS

14.1 Neither party may waive or release any of its rights or interests in this **Agreement** except in writing. The failure of the **Government** to assert a right hereunder or to insist upon compliance with any term or condition of this **Agreement** shall not constitute a waiver of that right by the **Government** or excuse a similar subsequent failure to perform any of these terms or conditions by the **Licensee**.

14.2 This **Agreement** constitutes the entire agreement between the Parties relating to the subject matter of the **Licensed Patent Rights**, **Licensed Products** and **Licensed Processes**, and all prior negotiations, representations, agreements, and understandings are merged into, extinguished by, and completely expressed by this **Agreement**.

14.3 The provisions of this **Agreement** are severable, and in the event that any provision of this **Agreement** shall be determined to be invalid or unenforceable under any controlling body of law, this determination shall not in any way affect the validity or enforceability of the remaining provisions of this **Agreement**.

14.4 If either party desires a modification to this **Agreement**, the parties shall, upon reasonable notice of the proposed modification by the party desiring the change, confer in good faith to determine the desirability of the modification. No modification shall be effective until a written amendment is signed by the signatories to this **Agreement** or their designees.

14.5 The construction, validity, performance, and effect of this **Agreement** shall be governed by Federal law as applied by the Federal courts in the District of Columbia.

14.6 All **Agreement** notices required or permitted by this **Agreement** shall be given by prepaid, first class, registered or certified mail or by an express/overnight delivery service provided by a commercial carrier, properly addressed to the other party at the address designated on the Signature Page, or to any other address as may be designated in writing by such other party. **Agreement** notices shall be considered timely if such notices are received on or before the established deadline date or sent on or before the deadline date as verifiable by U.S. Postal Service postmark or dated receipt from a commercial carrier. Parties should request a legibly dated U.S. Postal Service postmark or obtain a dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.

14.7 This **Agreement** shall not be assigned or otherwise transferred (including any transfer by legal process or by operation of law, and any transfer in bankruptcy or insolvency, or in any other compulsory procedure or order of court) except to the **Licensee's Affiliate(s)** without the prior written consent of the **NIAID**. The parties agree that the identity of the parties is material to the formation of this **Agreement** and that the obligations under this **Agreement** are nondelegable. In the event that the **NIAID** approves a proposed assignment, the **Licensee** shall pay the **NIAID**, as an additional royalty, one percent (1%) of the fair market value of any consideration received for any assignment of this **Agreement** within sixty (60) days of the assignment

14.8 The **Licensee** agrees in its use of any **NIAID** -supplied materials to comply with all applicable statutes, regulations, and guidelines, including **NIH** and **HHS** regulations and guidelines. The **Licensee** agrees not to use the materials for research involving human subjects or clinical trials in the United States without complying with 21 C.F.R. Part 50 and 45 C.F.R. Part 46. The **Licensee** agrees not to use the materials for research involving human subjects or clinical trials outside of the United States without notifying the **NIAID**, in writing, of the research or trials and complying with the applicable regulations of the appropriate national control authorities. Written notification to the **NIAID** of research involving human subjects or clinical trials outside of the United States shall be given no later than sixty (60) days prior to commencement of the research or trials.

14.9 The **Licensee** acknowledges that it is subject to and agrees to abide by the United States laws and regulations (including the Export Administration Act of 1979 and Arms Export Control Act) controlling the export of technical data, computer software, laboratory prototypes, biological materials, and other commodities. The transfer of these items may require a license from the appropriate agency of the **Government** or written assurances by the **Licensee** that it shall not export these items to certain foreign countries without prior approval of the agency. The **IC** neither represents that a license is or is not required or that, if required, it shall be issued.

14.10 The **Licensee** agrees to mark the **Licensed Products** or their packaging sold in the United States with all applicable U.S. patent numbers and similarly to indicate "Patent Pending" status. All **Licensed Products** manufactured in, shipped to, or sold in other countries shall be marked in a manner to preserve the **NIAID** patent rights in those countries.

14.11 By entering into this **Agreement**, the **NIAID** does not directly or indirectly endorse any product or service provided, or to be provided, by the **Licensee** whether directly or indirectly related to this **Agreement**. The **Licensee** shall not state or imply that this **Agreement** is an endorsement by the **Government**, the **NIAID**, any other **Government** organizational unit, or any **Government** employee. Additionally, the **Licensee** shall not use the names of the **NIAID**, the **FDA**, **HHS**, or the **Government** or their employees in any advertising, promotional, or sales literature without the prior written approval of the **NIAID**.

14.12 The Parties agree to attempt to settle amicably any controversy or claim arising under this **Agreement** or a breach of this **Agreement**, except for appeals of modifications or termination decisions provided for in Article 13. The **Licensee** agrees first to appeal any unsettled claims or controversies to the designated **NIAID** official, or designee, whose decision shall be considered the final agency decision. Thereafter, the **Licensee** may exercise any administrative or judicial remedies that may be available.

14.13 Nothing relating to the grant of a license, nor the grant itself, shall be construed to confer upon any person any immunity from or defenses under the antitrust laws or from a charge of patent misuse, and the acquisition and use of rights pursuant to 37 C.F.R. Part 404 shall not be immunized from the operation of state or Federal law by reason of the source of the grant.

14.14 Paragraphs 6.12, 8.1, 9.6-9.8, 12.1-12.5, 13.8, 13.9, 14.12 and 14.14 of this **Agreement** shall survive termination of this **Agreement**.

14.15 The terms and conditions of this **Agreement** shall, at the **NIAID's** sole option, be considered by the **NIAID** to be withdrawn from the **Licensee's** consideration and the terms and conditions of this **Agreement**, and the **Agreement** itself to be null and void, unless this **Agreement** is executed by the **Licensee** and a fully executed original is received by the **NIAID** within sixty (60) days from the date of the **NIAID** signature found at the Signature Page.

SIGNATURES BEGIN ON NEXT PAGE

NIH PATENT LICENSE AGREEMENT – *NONEXCLUSIVE*

SIGNATURE PAGE

For the **NIAID**:

(b)(6)

2 NOV 2018
Date

Michael R. Mowatt, Ph.D.
Director and NIAID TDC
Technology Transfer and Intellectual Property Office, NIAID
National Institutes of Health

Mailing Address or E-mail Address for **Agreement** notices and reports:

License Compliance and Administration
Monitoring & Enforcement
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For the **Licensee** (Upon, information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the **Licensee** made or referred to in this document are truthful and accurate.):

by:

(b)(6)

2. NOV. 2018
Date

Wendy Holman
CEO
Ridgeback Biotherapeutics LLC

I. Official and Mailing Address for **Agreement** notices for Financial notices (the **Licensee's** contact person for royalty payments):

Wendy Holman, CEO
Ridgeback Biotherapeutics LP
(b)(6)
(b)(4); (b)(6) – Phone
– Fax
(b)(6)

Any false or misleading statements made, presented, or submitted to the **Government**, including any relevant omissions, under this **Agreement** and during the course of negotiation of this **Agreement** are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) and/or imprisonment).

APPENDIX A – PATENT(S) OR PATENT APPLICATION(S)

Patent(s) or Patent Application(s):

NIH Ref. Nos. E-278-2016/0,1,2, titled "Antibodies that Neutralize Ebola Virus and Uses Thereof", by Antonio Lanzavechia and Sullivan et al. (NIAID/VRC):

- U.S. Provisional Patent Application 62/080,094, filed 14 November 2014
- PCT/IB2015/002342 (published as WO/2016/075546), filed 13 November 2015

NIH Ref. Nos. E-045-2015/0,1,2,3,4, titled "Neutralizing Antibodies to Ebolavirus Glycoprotein and Their Use", by Sullivan et al. (NIAID/VRC):

- U.S. Provisional Patent Application 62/087,087, filed 03 December 2014
- PCT/US2015/060733 (published as WO2016077789), filed 13 November 2015
- US Patent Application 15/526,661, filed 12 May 2017
- EP Patent Application 15797815.6, filed 12 May 2017

APPENDIX B – LICENSED MATERIALS

(b)(4)

(b)(4)

(b)(4)

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(b)(4)

APPENDIX C – LICENSED FIELDS OF USE AND TERRITORY

I. **Licensed Fields of Use:**

(b)(4)

Licensed Territory:

(b)(4)

II. **Least Developed Countries:**

(b)(4)

APPENDIX (b)(4) - ROYALTIES

I. The **Licensee** agrees to pay to the **NIAID** a non-creditable, non-refundable license issue royalty in the amount of (b)(4) within sixty (60) days from the effective date of this Agreement.

II. The **Licensee** agrees to pay to the **NIAID** a non-refundable minimum annual royalty as follows:

(a) (b)(4)

(b) (b)(4)

(c) The first minimum annual royalty is due within sixty (60) days of the effective date of this **Agreement** and may be prorated according to the fraction of the calendar year remaining between the effective date of this **Agreement** and the next subsequent January 1; and

(d) Subsequent minimum annual royalty payments are due and payable on January 1 of each calendar year and may be credited against any earned royalties due for sales made in that year.

III. The **Licensee** agrees to pay the **NIAID** (b)(4) earned royalties on **Net Sales** of **Licensed Products** by or on behalf of the **Licensee** (b)(4)

(a) (b)(4)

(b)(4)

(b)(4)

(b)(4)

(b) (b)(4)

(b)(4)

(b)(4)

(b)(4)

IV. The **Licensee** agrees to pay the **NIAID Benchmark** royalties within sixty (60) days of achieving each **Benchmark**:

(b)(4)

(b)(4)

V. (b)(4)

APPENDIX E – BENCHMARKS AND PERFORMANCE

The **Licensee** agrees to the following **Benchmarks** for its performance under this **Agreement** and, within thirty (30) days of achieving a **Benchmark**, shall notify the **NIAID** that the **Benchmark** has been achieved.

(b)(4)
(b)(4)
(b)(4)

APPENDIX F – COMMERCIAL DEVELOPMENT PLAN

(b)(4)

(b)(4)

(b)(4)

Licensee mAb114 team includes:

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

Clinical Development Plan (CDP):

(b)(4)

(b)(4)

(b)(4)

(b)(4)

Clinical and Regulatory Capabilities:

(b)(4)

(b)(4)

(b)(4)

APPENDIX G – EXAMPLE ROYALTY REPORT

Required royalty report information includes:

- License reference number (L-XXX-200X/0)
- Reporting period
- Catalog number and units sold of each Licensed Product (domestic and foreign)
- Gross Sales per catalog number per country
- Total Gross Sales
- Itemized deductions from Gross Sales
- Total Net Sales
- Earned Royalty Rate and associated calculations
- Gross Earned Royalty
- Adjustments for Minimum Annual Royalty (MAR) and other creditable payments made
- Net Earned Royalty due

Example

Catalog Number	Product Name	Country	Units Sold	Gross Sales (US$)
1	A	US	250	62,500
1	A	UK	32	16,500
1	A	France	25	15,625
2	B	US	0	0
3	C	US	57	57,125
4	D	US	12	1,500

Total Gross Sales	153,250
Less Deductions:	
Freight	3,000
Returns	7,000
Total Net Sales	143,250
Royalty Rate	8%
Royalty Due	11,460
Less Creditable Payments	10,000
Net Royalty Due	**1,460**

APPENDIX H – ROYALTY PAYMENT OPTIONS

New Payment Options Effective March 2018

The License Number MUST appear on payments, reports and correspondence.

Credit and Debit Card Payments: Credit and debit card payments can be submitted for amounts up to $24,999. Submit your payment through the U.S. Treasury web site located at: **https://www.pay.gov/public/form/start/28680443.**

Automated Clearing House (ACH) for payments through U.S. banks only

The **IC** encourages its licensees to submit electronic funds transfer payments through the Automated Clearing House (ACH). Submit your ACH payment through the U.S. Treasury web site located at: https://www.pay.gov/public/form/startJ28680443. Please note that the IC "only" accepts ACH payments through this U.S. Treasury web site.

Electronic Funds Wire Transfers: The following account information is provided for wire payments. In order to process payment via Electronic Funds Wire Transfer sender MUST supply the following information within the transmission:

Drawn on a **U.S. bank account** via FEDWIRE:

Please provide the following instructions to your Financial Institution for the remittance of Fedwire payments to the **NIH ROYALTY FUND**.

Fedwire Field Tag	Fedwire Field Name	Required Information
{1510}	Type/Subtype	**1000**
{2000}	Amount	*(enter payment amount)*
{3400}	Receiver ABA routing number*	(b)(4)
{3400}	Receiver ABA short name	**TREAS NYC**
{3600}	Business Function Code	**CTR** (*or CTP*)
{4200}	Beneficiary Identifier (account number)	*(enter 12 digit gateway account #)* (b)(4)
{4200}	Beneficiary Name	*(enter agency name associated with the Beneficiary Identifier)* **DHHS / NIH** (b)(4)
{5000}	Originator	*(enter the name of the originator of the payment)* **COMPANY NAME**
{6000}	Originator to Beneficiary Information – Line 1	*(enter information to identify the purpose of the payment)* **ROYALTY**
{6000}	Originator to Beneficiary Information – Line 2	*(enter information to identify the purpose of the payment)* **LICENSE NUMBER**
{6000}	Originator to Beneficiary Information – Line 3	*(enter information to identify the purpose of the payment)* ***INVOICE NUMBER***
{6000}	Originator to Beneficiary Information – Line 4	*(enter information to identify the purpose of the payment)*
Notes:		

Fedwire Field Tag	Fedwire Field Name	Required Information
*The financial institution address for Treasury's routing number is 33 Liberty Street, New York, NY 10045.		

Agency Contacts: Office of Technology Transfer (OTT) (301) 496-7057 OTT-Royalties@mail.nih.gov

Drawn on a **foreign bank account** via FEDWIRE:

The following instructions pertain to the Fedwire Network. Deposits made in US Dollars (USD).

Should your remitter utilize a correspondent US domestic bank in transferring electronic funds, the following Fedwire instructions are applicable.

Fedwire Field Tag	Fedwire Field Name	Required Information
{1510}	Type/Subtype	**1000**
{2000}	Amount	*(enter payment amount)*
{3100}	Sender Bank ABA routing number	*(enter the US correspondent bank's ABA routing number)*
{3400}	Receiver ABA routing number*	(b)(4)
{3400}	Receiver ABA short name	**TREAS NYC**
{3600}	Business Function Code	**CTR** (*or CTP*)
{4200}	Beneficiary Identifier (account number)**	*(enter 12 digit gateway account #)* (b)(4)
{4200}	Beneficiary Name	*(enter agency name associated with the Beneficiary Identifier)* **DHHS / NIH** (b)(4)
{5000}	Originator	*(enter the name of the originator of the payment)* **COMPANY'S NAME**
{6000}	Originator to Beneficiary Information – Line 1	*(enter information to identify the purpose of the payment)* **ROYALTY**
{6000}	Originator to Beneficiary Information – Line 2	*(enter information to identify the purpose of the payment)* **LICENSE NUMBER**
{6000}	Originator to Beneficiary Information – Line 3	*(enter information to identify the purpose of the payment)* ***INVOICE NUMBER***
{6000}	Originator to Beneficiary Information – Line 4	*(enter information to identify the purpose of the payment)*
Notes: *The financial institution address for Treasury's routing number is 33 Liberty Street, New York, NY 10045. **Anything other than the 12 digit gateway account # will cause the Fedwire to be returned – **SWIFT CODE:** (b)(4)		

Agency Contacts:

Office of Technology Transfer (OTT) (301) 496-7057 OTT-Royalties@mail.nih.gov

Checks

All checks should be made payable to "NIH Patent Licensing"

Checks drawn on a **U.S. bank account** and sent by US Postal Service should be sent directly to the following address:

National Institutes of Health
P.O. Box 979071
St. Louis, MO 63197-9000

Checks drawn on a U.S. bank account and sent by **overnight or courier** should be sent to the following address:

US Bank
Government Lockbox SL-MO-C2GL
1005 Convention Plaza
St. Louis, MO 63101
Phone: 314-418-4087

Checks drawn on a **foreign bank account** should be sent directly to the following address:

National Institutes of Health
Office of Technology Transfer
License Compliance and Administration
Royalty Administration
6011 Executive Boulevard
Suite 325, MSC 7660
Rockville, Maryland 20852

PUBLIC HEALTH SERVICE

INTERINSTITUTIONAL AGREEMENT

IC-LEAD

This **Agreement** is based on the model Interinstitutional IC Lead Agreement adopted by the U.S. Public Health Service ("**PHS**") Technology Transfer Policy Board for use by components of the National Institutes of Health ("**NIH**"), the Centers for Disease Control and Prevention ("**CDC**"), and the Food and Drug Administration ("**FDA**"), which are agencies of the **PHS** within the Department of Health and Human Services ("**HHS**").

This Cover Page identifies the Parties to this **Agreement**:

The U.S. Department of Health and Human Services, as represented by

National Institute of Allergy and Infectious Diseases, an Institute or Center (hereinafter referred to as the "**IC**") of the

NIH

and

HUMABS BioMed SA,

hereinafter referred to as "**HUMABS**",

having offices at Via Mirasole 1, 6500 Bellinzona, Ticino, Switzerland,

created and operating under the laws of Switzerland.

and

the Institute for Research in Biomedicine

hereinafter referred to as "**IRB**",

having offices at Via Vincenzo Vela 6, 6500 Bellinzona, Ticino, Switzerland

created and operating under the laws of Switzerland,

each may be referred to as a "**Party**" and one or more as "**Parties**."

L#: L-136-2017
L-143-2017

(b)(6)

A-481-2016

A-138-2017

1. BACKGROUND

1.1 In the course of fundamental research programs at the **IC**, **IRB,** and the United States Army Medical Research Institute of Infectious Diseases **(USAMRIID)** and under a research collaboration agreement ("**RCA**") between **IC** and **IRB** (NIAID Reference Number 2007-0166), Nancy Sullivan (**IC**), Sabue Mulangu (**IC**), Barney Graham (**IC**), Jean-Jacques Muyembe-Tamfun (**IC**), Julie Ledgerwood (**IC**), Daphne Stanley (**IC**), Davide Corti **(HUMABS)**, Antonio Lanzavecchia (**IRB**) and John Trefy (**USAMRIID**) (hereinafter referred to as the "**Inventor(s)**") made or reduced to practice certain inventions, which are included within the **Patent Rights**, as defined in Paragraph 2. (b)(4)

1.2 (b)(4)

1.3 (b)(4)

1.4 (b)(4)

1.5 (b)(4)

1.6 Now it is the mutual desire of **IRB, HUMABS,** and the **IC** that their respective undivided interests in the **Patent Rights** be administered in a manner to ensure the rapid commercialization of the **Patent Rights** and to make their benefits widely available to the public. Therefore, **HUMABS** is granting an exclusive license under **HUMABS**'s rights in the **Patent Rights** to the **IC** under the conditions set forth herein.

2. DEFINITIONS

2.1 "**Confidential Information**" means confidential scientific, business, or financial information pertaining to the patent prosecution, commercial development, and licensing activities relating to the "**Patent Rights**". Confidential Information does not include information that: (i) is publicly known or that is available from public sources; (ii) has been made available by its owner to others without obligation of confidentiality; (iii) is already known by the receiving Party(ies), or is independently created or compiled by the receiving Party(ies) without reference to or use of the provided information; or (iv) the owner expressly authorizes the other Party(ies) to disclose.

(b)(6)

2.2 "**Government**" means the government of the United States of America.

2.3 "**Patent Rights**" means:

(b)(4)

(b) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2(a) and to the extent that at least one **Inventor** from the **IRB** is an **Inventor**:

(i) continuations-in-part of 2(a);

(ii) all divisions and continuations of these continuations-in-part;

(iii) all patents issuing from these continuations-in-part, divisions, and continuations;

(iv) priority patent application(s) of 2(a); and

(v) any reissues, reexaminations, and extensions of all these patents; and

(c) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2(a) and to the extent that at least one **Inventor** from the **IRB** is an **Inventor**: all counterpart foreign and U.S. patent applications and patents to 2(a) and 2(b); and

(d) **Patent Rights** shall *not* include 2(b) or 2(c) to the extent that they contain one or more claims directed to new matter which is not the subject matter disclosed in 2(a).

(b)(6)

2.4 "**Net Revenues**" means all consideration received by the **IC** from the licensing of the **Patent Rights** pursuant to this **Agreement** less (a) **Expenses** and(b) (b)(4) of the remaining (b)(4) (b)(4) in consideration for administrative overhead). In the event that a license is executed by the **IC** with a third party wherein the **Patent Rights** are licensed together with other technologies not falling under the definition of the **Patent Rights**, all consideration received by the **IC** from the licensing of the **Patent Rights** pursuant to this **Agreement** through the third-party executed license shall correspond to the **Patent Rights'** percentage contribution to the total amount received for all licensed technologies as determined by the **IC**.

2.5 "**Expenses**" means all reasonable and actual out-of-pocket costs, excluding those reimbursed by a third party, paid by the **IC** for the preparation, filing, prosecution, and licensing of United States and foreign patent applications, extraordinary expenses as provided in Paragraph 4.6, and the maintenance of the resulting patents or patent applications, exclusive of any salaries, administrative, or other indirect costs.

3. GRANT AND RESERVATION OF RIGHTS

3.1 **HUMABS** hereby grants and the **IC** accepts, subject to the terms and conditions of this **Agreement**, an exclusive license including the right to sublicense, under the **Patent Rights** to make and have made, to use and have used, to sell and have sold, to offer to sell, and to import any tangible embodiment of the **Patent Rights** and to practice and have practiced any process(es) included within the **Patent Rights**.
(b)(4)

3.2 The **Government** shall have the irrevocable, royalty-free, paid-up right to practice and have practiced the **Patent Rights** throughout the world by or on behalf of the **Government** and on behalf of any foreign government or international organization pursuant to any existing or future treaty or agreement to which the **Government** is a signatory.

4. PATENT PROSECUTION AND PROTECTION

4.1 The **IC** shall file, prosecute, and maintain patent application(s) relating to the **Patent Rights** and shall promptly provide to **HUMABS** and **IRB** all serial numbers and filing dates, together with copies of all the applications, including copies of all Patent Office actions, responses, and all other Patent Office communications. **IRB** shall grant Power of Attorney to **IC** for (b)(4) (b)(4) **IC** shall (b)(4) (b)(4) any (b)(4) to the **Patent Rights** (b)(4)

4.2 The **IC** shall make an election with respect to foreign filing, upon consultation with the **IRB** and **HUMABS**. If any foreign patent applications are filed, the **IC** shall promptly provide to the **IRB** and **HUMABS** all serial numbers and filing dates. The **IC** also shall provide to **HUMABS** and **IRB** copies of foreign patent applications and Patent Office actions. The **IC** shall consult with **HUMABS** and **IRB**, when so requested, prior to communication with any Patent Office with respect to the **Patent Rights**.

4.3 The **IC** shall promptly record Assignments of domestic patent rights in the United States Patent and Trademark Office and shall promptly provide **HUMABS** and **IRB** with a photocopy of each recorded Assignment(s) (b)(4)

(b)(6)

4.4 Notwithstanding any other provision of this **Agreement**, the **IC** shall not abandon the prosecution of any patent application, including provisional patent applications (except for purposes of filing continuation application(s)) or the maintenance of any patent contemplated by this **Agreement**, without prior written notice to **HUMABS** and **IRB**. Upon receiving the written notice, **HUMABS** and/or **IRB** may, at its sole option and expense, take over the prosecution of any patent application, or the maintenance of any patent.

4.5 The **IC** shall promptly provide the **HUMABS** and **IRB** with copies of all issued patents under this **Agreement**.

4.6 In the event that the **IC** anticipates the possibility of any extraordinary expenditures arising from the preparation, filing, prosecution, licensing, or defense of any patent application or patent contemplated by this **Agreement**, including, without limitation, interferences, reexaminations, reissues and oppositions, the **IC** shall provide **HUMABS** and **IRB** with all relevant information and these extraordinary expenditures shall be included as **Expenses** only upon written agreement of the **IRB** and **HUMABS**. The **IC**, **HUMABS**, and **IRB** shall agree on a mutually acceptable course of action prior to incurring these expenditures.

4.7 (b)(4)

5. LICENSING

5.1 The **IC** shall diligently seek licensees for the commercial development of the **Patent Rights** and shall administer the **Patent Rights** for the mutual benefit of the Parties and in the public interest, in accordance with 37 C.F.R. § 404.

5.2 The **IC** shall promptly provide **HUMABS** and **IRB** with copies of all licenses and sublicenses granted for the **Patent Rights**.

6. ROYALTIES AND EXPENSES

6.1 The **IC** shall distribute **Net Revenues** to **HUMABS** concurrently with distributions it makes under the **IC's** patent policy on the following basis: (a) (b)(4) of the **Net Revenues** as a royalty to **HUMABS** and (b) 50% of the **Net Revenues** as a royalty to **IC. USAMRIID**'s royalty share of 10% of the **Net Revenues** (b)(4) All payments to (b)(4) (b)(4)

6.2 The **IC** shall submit to (b)(4) annual statements of itemized **Expenses**, as defined in Paragraph 2 (b)(and shall deduct the **Expenses** as provided for in Paragraph 2 (b) except where (b)(4) has identified discrepancies in billing by the **IC**, in which case, deduction of the contested item(s), as a part of **Expenses** as provided for in Paragraph 2 (b) shall be delayed pending resolution thereof.

6.3 In no event shall (b)(4) be obligated to bear any costs for the **Expenses** under this **Agreement**.

(b)(6)

6.4 Each party shall be solely responsible for calculating and distributing to its respective **Inventor(s)** of the **Patent Rights** any share of the **Net Revenues** in accordance with its respective patent policy, royalty policy, or Federal law during the term of this **Agreement**.

7. RECORDS AND REPORTS

7.1 The **IC** shall keep complete, true, and accurate accounts of all **Expenses** and of all **Net Revenues** received by it from each licensee of the **Patent Rights** and shall permit **HUMABS** or **HUMABS**'s designated agent to examine its books and records in order to verify the payments due or owed under this **Agreement**. This examination shall not occur more than one (1) time in any single calendar year.

7.2 The **IC** shall submit to **HUMABS** a (b)(4) report, not later than April 1 of each year, setting forth the status of all patent prosecution, clinical development, and licensing activity relating to the **Patent Rights** for the preceding calendar year. (b)(4)
(b)(4)

8. (b)(4)

8.1 (b)(4)

8.2 (b)(4)

9. PATENT INFRINGEMENT

9.1 In the event that any **Party**, including the **IC**'s licensees, shall learn of the substantial infringement of any **Patent Rights**, the **Party** who learns of the infringement shall promptly notify the other **Parties** in writing and shall provide the other **Parties** with all available evidence of the infringement. The **IC** and its licensees, in cooperation with **HUMABS**, shall use their best efforts to eliminate any infringement of **Patent Rights** without litigation. If the efforts of the **Parties** are not successful in eliminating the infringement within ninety (90) days after the infringing party has been formally notified of the infringement by the **IC,** the **IC** shall have the right, after consulting with the other **Parties**, to commence suit on its own account.

9.2 The **IC** may permit its licensees to bring suit on their own account, and the **IC** shall retain the right to join any licensee's suit.

(b)(6)

9.3 Neither **IRB** nor **HUMABS** shall take action to compel the **IC** either to initiate or to join in any suit for patent infringement. Should the **Government** be made a party to any such suit by motion or any other action of the **IRB or HUMABS**, that **Party** shall reimburse the **Government** for any costs, expenses, or fees which the **Government** incurs as a result of the motion or other action, including all costs incurred by the **IC** in opposing any joinder action.

9.4 Legal action or suits to eliminate infringement or recover damages pursuant to Paragraph (b)(shall be at the full expense of the **Party** by whom suit is brought. All damages recovered thereby shall first be used to reimburse each **Party** for its expenses related to the legal action or suit, and the remainder of the damages shall be considered **Net Revenues**.

9.5 Each **Party** agrees to cooperate with the others in litigation proceedings relating to the Patent Rights. The **IC** may be represented, at its expense, by counsel of its choice in any suit.

10. GOVERNING LAWS, SETTLING DISPUTES

10.1 This **Agreement** shall be construed in accordance with U.S. Federal law, as interpreted and applied by the U.S. Federal courts in the District of Columbia. Federal law and regulations shall preempt any conflicting or inconsistent provisions in this **Agreement**. **HUMABS** and **IRB** agree to be subject to the jurisdiction of U.S. courts.

10.2 Any controversy or any disputed claim by any **Party** against the other arising under or related to this **Agreement** shall be submitted jointly to the designated **IRB** official, **HUMABS's** President or designee, and to the designated **IC** official or designee for resolution. **IRB**, **HUMABS,** and the **IC** shall be free after written decisions are issued by those officials to pursue any and all administrative or judicial remedies which may be available.

11. TERM AND TERMINATION

11.1 This **Agreement** is effective when signed by all **Parties**, unless the provisions of Paragraph (b)(8 are not fulfilled, and shall extend to the expiration of the last to expire of the patents included within the **Patent Rights** unless otherwise terminated by operation of law or by acts of the parties in accordance with the terms of this **Agreement**.

11.2 (b)(4)

11.3 The **IC** may terminate this **Agreement** upon at least sixty (60) days written notice to **IRB** and **HUMABS**, but in any event, not less than sixty (60) days prior to the date on which any pending Patent Office actions need be taken to preserve patent rights for the benefit of the **Parties** hereto.

11.4 (b)(4) may terminate this **Agreement** in whole or in part if:

(a) the **IC** fails to make payments or periodic reports required by this **Agreement**;

(b) the **IC** has committed a substantial breach of a covenant or duty contained in this **Agreement**; or

(b)(6)

(b)(6)

(c) the **IC** and the (b)(4) are involved in a dispute under this **Agreement** which cannot be resolved under the procedures specified in Paragraph (b)(2; or

(d) (b)(4)

(b)(4)

11.5 If the **Agreement** is terminated under Paragraph (b)(3, **IRB** and **HUMABS** agree to provide all affected licensees an opportunity to license the **Patent Rights** under such terms as may have been agreed to by the **IC**.

12. GENERAL

12.1 All **Agreement** notices required or permitted by this **Agreement** shall be given by prepaid, first class, registered or certified mail or by an express/overnight delivery service provided by a commercial carrier, properly addressed to the other party at the address designated on the following Signature Page, or to such other address as may be designated in writing by the other Parties. **Agreement** notices shall be considered timely if the notices are received on or before the established deadline date or sent on or before the deadline date as verifiable by U.S. Postal Service postmark or dated receipt from a commercial carrier. **Parties** should request a legibly dated U.S. Postal Service postmark or obtain a dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.

12.2 The **Agreement** shall not be construed to confer on any person any immunity from or defenses under the antitrust laws or from a charge of patent misuse, and the acquisition and use of rights pursuant to this **Agreement** shall not be immunized from the operation of state or Federal law by reason of the source of the grant.

12.3 It is agreed that no waiver by (b)(4) hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent or similar breach or default.

12.4 This **Agreement** is binding upon and shall inure to the benefit of the **Parties** hereto, their successors or assigns, but this **Agreement** may not be assigned by (b)(4) without the prior written consent of the other (b)(4)

12.5 This **Agreement** confers no license or rights by implication, estoppel, or otherwise under any patent applications or patents of the **IC** other than the **Patent Rights** regardless of whether such patents are dominant or subordinate to the **Patent Rights**.

12.6 Any modification to this **Agreement** must be in writing and agreed to by (b)(4) (b)(6)

12.7 It is understood and agreed by **HUMABS**, **IRB**, and the **IC** that this **Agreement** constitutes the entire agreement, both written and oral, between the **Parties**, and that all prior agreements respecting the subject matter hereof, either written or oral, expressed or implied, shall be abrogated, canceled, and are null and void and of no effect.

12.8 The terms and conditions of this **Agreement** shall, at the **IC's** sole option, be considered by the **IC** to be withdrawn from **IRB's** and/or **HUMABS's** consideration and the terms and conditions of this **Agreement**, and the **Agreement** itself to be null and void, unless this **Agreement** is executed by **IRB** and **HUMABS** and a fully executed original is received by the **IC** within sixty (60) days from the date of the **IC's** signature found at the Signature Page.

SIGNATURES BEGIN ON NEXT PAGE

(b)(6)

SIGNATURE PAGE

IN WITNESS WHEREOF, the parties hereto have executed this **Agreement** in duplicate originals by their respective duly authorized officers hereunto, on the day and year hereinafter written. Any communication or notice to be given shall be forwarded to the respective addresses listed below.

For the **IC**:

(b)(6)

17 FEB 2017

Name Michael R. Mowatt, Ph.D. Date
Title Director
Office Technology Transfer and Intellectual Property Office
National Institutes of Health

Mailing Address or E-mail Address for **Agreement** notices and reports:

License Compliance and Administration
Monitoring & Enforcement Branch
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For **HUMABS** (Upon information and belief, the undersigned expressly certifies or affirms that the contents of any statements of **HUMABS** made or referred to in this **Agreement** are truthful and accurate.)

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A-481-2016

A-138-2017

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Mailing Address:

(b)(6)

A-481-2016

A-138-2017

(b)(6)

(b)(6)

(b)(6)

A-481-2016

A-138-2017

Any false or misleading statements made, presented, or submitted to the **Government**, including any relevant omissions, under this **Agreement** and during the course of negotiation of this **Agreement** are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) or imprisonment).

(b)(6)

PUBLIC HEALTH SERVICE

INTERINSTITUTIONAL AGREEMENT

IC-LEAD

This **Agreement** is based on the model Interinstitutional IC Lead Agreement adopted by the U.S. Public Health Service ("**PHS**") Technology Transfer Policy Board for use by components of the National Institutes of Health ("**NIH**"), the Centers for Disease Control and Prevention ("**CDC**"), and the Food and Drug Administration ("**FDA**"), which are agencies of the **PHS** within the Department of Health and Human Services ("**HHS**").

This Cover Page identifies the Parties to this **Agreement**:

The U.S. Department of Health and Human Services, as represented by

National Institute of Allergy and Infectious Diseases, an Institute or Center (hereinafter referred to as the "**IC**") of the

NIH

and

HUMABS BioMed SA,

hereinafter referred to as "**HUMABS**",

having offices at Via Mirasole 1, 6500 Bellinzona, Ticino, Switzerland,

created and operating under the laws of Switzerland.

and

the Institute for Research in Biomedicine

hereinafter referred to as "**IRB**",

having offices at Via Vincenzo Vela 6, 6500 Bellinzona, Ticino, Switzerland

created and operating under the laws of Switzerland,

each may be referred to as a "**Party**" and one or more as "**Parties**."

L#: L-136-2017
L-143-2017

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A-481-2016

A-138-2017

1. BACKGROUND

1.1 In the course of fundamental research programs at the **IC**, **IRB,** and the United States Army Medical Research Institute of Infectious Diseases **(USAMRIID)** and under a research collaboration agreement ("**RCA**") between **IC** and **IRB** (NIAID Reference Number 2007-0166), Nancy Sullivan (**IC**), Sabue Mulangu (**IC**), Barney Graham (**IC**), Jean-Jacques Muyembe-Tamfun (**IC**), Julie Ledgerwood (**IC**), Daphne Stanley (**IC**), Davide Corti **(HUMABS**), Antonio Lanzavecchia (**IRB**) and John Trefy (**USAMRIID**) (hereinafter referred to as the "**Inventor(s)**") made or reduced to practice certain inventions, which are included within the **Patent Rights**, as defined in Paragraph 2.3.

(b)(4)

1.2 (b)(4)

1.3 (b)(4)

1.4 (b)(4)

1.5 (b)(4)

1.6 Now it is the mutual desire of **IRB, HUMABS,** and the **IC** that their respective undivided interests in the **Patent Rights** be administered in a manner to ensure the rapid commercialization of the **Patent Rights** and to make their benefits widely available to the public. Therefore, **HUMABS** is granting an exclusive license under **HUMABS**'s rights in the **Patent Rights** to the **IC** under the conditions set forth herein.

2. DEFINITIONS

2.1 (b)(4)

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2.2 "**Government**" means the government of the United States of America.

2.3 "**Patent Rights**" means:

(b)(4)

(b) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2.3(a) and to the extent that at least one **Inventor** from the (b)(4) is an **Inventor**:

(i) continuations-in-part of 2.(b)(a);

(ii) all divisions and continuations of these continuations-in-part;

(iii) all patents issuing from these continuations-in-part, divisions, and continuations;

(iv) priority patent application(s) of 2.(b)(a); and

(v) any reissues, reexaminations, and extensions of all these patents; and

(c) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2.(b)(a) and to the extent that at least one **Inventor** from the (b)(4) is an **Inventor**: all counterpart foreign and U.S. patent applications and patents to 2.(b)(a) and 2.(b)(b); and

(d) **Patent Rights** shall *not* include 2.(b)(b) or 2.(b)(c) to the extent that they contain one or more claims directed to new matter which is not the subject matter disclosed in 2.(b)(a).

(b)(6)

2.4 "**Net Revenues**" means all consideration received by the **IC** from the licensing of the **Patent Rights** pursuant to this **Agreement** less (a) **Expenses** and(b) (b)(4) percent (b)(4) of the remaining (b)(4) (b)(4) in consideration for administrative overhead). In the event that a license is executed by the **IC** with a third party wherein the **Patent Rights** are licensed together with other technologies not falling under the definition of the **Patent Rights**, all consideration received by the **IC** from the licensing of the **Patent Rights** pursuant to this **Agreement** through the third-party executed license shall correspond to the **Patent Rights'** percentage contribution to the total amount received for all licensed technologies as determined by the **IC**.

2.5 "**Expenses**" means all reasonable and actual out-of-pocket costs, excluding those reimbursed by a third party, paid by the **IC** for the preparation, filing, prosecution, and licensing of United States and foreign patent applications, extraordinary expenses as provided in Paragraph 4.6, and the maintenance of the resulting patents or patent applications, exclusive of any salaries, administrative, or other indirect costs.

3. GRANT AND RESERVATION OF RIGHTS

3.1 **HUMABS** hereby grants and the **IC** accepts, subject to the terms and conditions of this **Agreement**, an exclusive license including the right to sublicense, under the **Patent Rights** to make and have made, to use and have used, to sell and have sold, to offer to sell, and to import any tangible embodiment of the **Patent Rights** and to practice and have practiced any process(es) included within the **Patent Rights**.
(b)(4)

3.2 The **Government** shall have the irrevocable, royalty-free, paid-up right to practice and have practiced the **Patent Rights** throughout the world by or on behalf of the **Government** and on behalf of any foreign government or international organization pursuant to any existing or future treaty or agreement to which the **Government** is a signatory.

4. PATENT PROSECUTION AND PROTECTION

4.1 The **IC** shall file, prosecute, and maintain patent application(s) relating to the **Patent Rights** and shall promptly provide to **HUMABS** and **IRB** all serial numbers and filing dates, together with copies of all the applications, including copies of all Patent Office actions, responses, and all other Patent Office communications. (b)(4) shall grant Power of Attorney to **IC** for (b)(4)
(b)(6)
(b)(6) **Patent Rights** (b)(4)

4.2 The **IC** shall make an election with respect to foreign filing, upon consultation with the **IRB** and **HUMABS**. If any foreign patent applications are filed, the **IC** shall promptly provide to the **IRB** and **HUMABS** all serial numbers and filing dates. The **IC** also shall provide to **HUMABS** and **IRB** copies of foreign patent applications and Patent Office actions. The **IC** shall consult with **HUMABS** and **IRB**, when so requested, prior to communication with any Patent Office with respect to the **Patent Rights**.

4.3 The **IC** shall promptly record Assignments of domestic patent rights in the United States Patent and Trademark Office and shall promptly provide **HUMABS** and **IRB** with a photocopy of each recorded Assignment(s) and (b)(4)

(b)(6)

4.4 Notwithstanding any other provision of this **Agreement**, the **IC** shall not abandon the prosecution of any patent application, including provisional patent applications (except for purposes of filing continuation application(s)) or the maintenance of any patent contemplated by this **Agreement**, without prior written notice to **HUMABS** and **IRB**. Upon receiving the written notice, **HUMABS** and/or **IRB** may, at its sole option and expense, take over the prosecution of any patent application, or the maintenance of any patent.

4.5 The **IC** shall promptly provide the **HUMABS** and **IRB** with copies of all issued patents under this **Agreement**.

4.6 In the event that the **IC** anticipates the possibility of any extraordinary expenditures arising from the preparation, filing, prosecution, licensing, or defense of any patent application or patent contemplated by this **Agreement**, including, without limitation, interferences, reexaminations, reissues and oppositions, the **IC** shall provide **HUMABS** and **IRB** with all relevant information and these extraordinary expenditures shall be included as **Expenses** only upon written agreement of the **IRB** and **HUMABS**. The **IC**, **HUMABS**, and **IRB** shall agree on a mutually acceptable course of action prior to incurring these expenditures.

4.7 (b)(4)

5. LICENSING

5.1 The **IC** shall diligently seek licensees for the commercial development of the **Patent Rights** and shall administer the **Patent Rights** for the mutual benefit of the Parties and in the public interest, in accordance with 37 C.F.R. § 404.

5.2 The **IC** shall promptly provide **HUMABS** and **IRB** with copies of all licenses and sublicenses granted for the **Patent Rights**.

6. ROYALTIES AND EXPENSES

6.1 The **IC** shall distribute **Net Revenues** to **HUMABS** concurrently with distributions it makes under the **IC's** patent policy on the following basis: (a) (b)(4) of the **Net Revenues** as a royalty to **HUMABS** and (b) (b)(4) of the **Net Revenues** as a royalty to **IC.** (b)(4) (b)(4) All payments to (b)(4) (b)(4) (b)(4) required under this Agreement, shall be in U.S. dollars and shall be made by check or bank draft drawn on a United States bank and made payable to (b)(4) All payments to the **IC** shall be sent to the following address: (b)(4) (b)(4)

6.2 The **IC** shall submit to **HUMABS** annual statements of itemized **Expenses**, as defined in Paragraph 2.(b)(4) and shall deduct the **Expenses** as provided for in Paragraph 2.(b) except where **HUMABS** has identified discrepancies in billing by the **IC**, in which case, deduction of the contested item(s), as a part of **Expenses** as provided for in Paragraph 2.(b)(shall be delayed pending resolution thereof.

6.3 In no event shall **HUMABS** be obligated to bear any costs for the **Expenses** under this **Agreement**.

(b)(6)

6.4 Each party shall be solely responsible for calculating and distributing to its respective **Inventor(s)** of the **Patent Rights** any share of the **Net Revenues** in accordance with its respective patent policy, royalty policy, or Federal law during the term of this **Agreement**.

7. RECORDS AND REPORTS

7.1 The **IC** shall keep complete, true, and accurate accounts of all **Expenses** and of all **Net Revenues** received by it from each licensee of the **Patent Rights** and shall permit **HUMABS** or **HUMABS**'s designated agent to examine its books and records in order to verify the payments due or owed under this **Agreement**. This examination shall not occur more than one (1) time in any single calendar year.

7.2 The **IC** shall submit to **HUMABS** a (b)(4) report, not later than April 1 of each year, setting forth the status of all patent prosecution, clinical development, and licensing activity relating to the **Patent Rights** for the preceding calendar year. (b)(4) (b)(4)

8. CONFIDENTIALITY

8.1 (b)(4)

8.2 (b)(4)

9. PATENT INFRINGEMENT

9.1 In the event that (b)(4) including the (b)(4) licensees, shall learn of the substantial infringement of any (b)(4) the **Party** who learns of the infringement shall promptly notify the other **Parties** in writing and shall provide the other **Parties** with all available evidence of the infringement. The **IC** and its licensees, in cooperation with **HUMABS**, shall use their best efforts to eliminate (b)(4) infringement (b)(4) (b)(4) without litigation. If the efforts of the **Parties** are not successful in eliminating the infringement within ninety (90) days after the infringing party has been formally notified of the infringement by the **IC,** the **IC** shall have the right, after consulting with the other (b)(4) to commence suit on its own account.

9.2 The **IC** may permit its licensees to bring suit on their own account, and the **IC** shall retain the right to join any licensee's suit.

(b)(6)

9.3 Neither **IRB** nor **HUMABS** shall take action to compel the **IC** either to initiate or to join in any suit for patent infringement. Should the **Government** be made a party to any such suit by motion or any other action of the **IRB or HUMABS**, that **Party** shall reimburse the **Government** for any costs, expenses, or fees which the **Government** incurs as a result of the motion or other action, including all costs incurred by the **IC** in opposing any joinder action.

9.4 Legal action or suits to eliminate infringement or recover damages pursuant to Paragraph (b)(shall be at the full expense of the **Party** by whom suit is brought. All damages recovered thereby shall first be used to reimburse each **Party** for its expenses related to the legal action or suit, and the remainder of the damages shall be considered **Net Revenues**.

9.5 Each **Party** agrees to cooperate with the (b)(4) in litigation proceedings relating to the (b)(4) . The **IC** may be represented, at its expense, by counsel of its choice in any suit.

10. GOVERNING LAWS, SETTLING DISPUTES

10.1 This **Agreement** shall be construed in accordance with U.S. Federal law, as interpreted and applied by the U.S. Federal courts in the District of Columbia. Federal law and regulations shall preempt any conflicting or inconsistent provisions in this **Agreement**. **HUMABS** and **IRB** agree to be subject to the jurisdiction of U.S. courts.

10.2 Any controversy or any disputed claim by (b)(4) against the other arising under or related to this **Agreement** shall be submitted jointly to the (b)(4) President or designee, and to the designated **IC** official or designee for resolution. **IRB**, **HUMABS,** and the **IC** shall be free after written decisions are issued by those officials to pursue any and all administrative or judicial remedies which may be available.

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11.2 (b)(4)

11.3 The **IC** may terminate this **Agreement** upon at least sixty (60) days written notice to **IRB** and **HUMABS**, but in any event, not less than sixty (60) days prior to the date on which any pending Patent Office actions need be taken to preserve patent rights for the benefit of the **Parties** hereto.

11.4 (b)(4) may terminate this **Agreement** in whole or in part if:

(a) the **IC** fails to make payments or periodic reports required by this **Agreement**;

(b) the **IC** has committed a substantial breach of a covenant or duty contained in this **Agreement**; or

(b)(6)

(b)(6)

(c) the **IC** and the (b)(4) are involved in a dispute under this **Agreement** which cannot be resolved under the procedures specified in Paragraph (b)(4) or

(d) (b)(4)

(b)(4)

11.5 If the **Agreement** is terminated under Paragraph (b)(4), **IRB** and **HUMABS** agree to provide all affected licensees an opportunity to license the **Patent Rights** under such terms as may have been agreed to by the **IC**.

12. GENERAL

12.1 All **Agreement** notices required or permitted by this **Agreement** shall be given by prepaid, first class, registered or certified mail or by an express/overnight delivery service provided by a commercial carrier, properly addressed to the other party at the address designated on the following Signature Page, or to such other address as may be designated in writing by the other Parties. **Agreement** notices shall be considered timely if the notices are received on or before the established deadline date or sent on or before the deadline date as verifiable by U.S. Postal Service postmark or dated receipt from a commercial carrier. **Parties** should request a legibly dated U.S. Postal Service postmark or obtain a dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.

12.2 The **Agreement** shall not be construed to confer on any person any immunity from or defenses under the antitrust laws or from a charge of patent misuse, and the acquisition and use of rights pursuant to this **Agreement** shall not be immunized from the operation of state or Federal law by reason of the source of the grant.

12.3 It is agreed that no waiver by (b)(4) hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent or similar breach or default.

12.4 This **Agreement** is binding upon and shall inure to the benefit of the **Parties** hereto, their successors or assigns, but this **Agreement** may not be assigned by (b)(4) without the prior written consent of the other (b)(4)

12.5 This **Agreement** confers no license or rights by implication, estoppel, or otherwise under any patent applications or patents of the **IC** other than the **Patent Rights** regardless of whether such patents are dominant or subordinate to the **Patent Rights**.

12.6 Any modification to this **Agreement** must be in writing and (b)(4)

(b)(6)

12.7 It is understood and agreed by **HUMABS**, **IRB**, and the **IC** that this **Agreement** constitutes the entire agreement, both written and oral, between the (b)(4) and that all prior agreements respecting the subject matter hereof, either written or oral, expressed or implied, shall be abrogated, canceled, and are null and void and of no effect.

12.8 The terms and conditions of this **Agreement** shall, at the **IC's** sole option, be considered by the **IC** to be withdrawn from **IRB's** and/or **HUMABS's** consideration and the terms and conditions of this **Agreement**, and the **Agreement** itself to be null and void, unless this **Agreement** is executed by **IRB** and **HUMABS** and a fully executed original is received by the **IC** within sixty (60) days from the date of the **IC's** signature found at the Signature Page.

SIGNATURES BEGIN ON NEXT PAGE

(b)(6)

SIGNATURE PAGE

IN WITNESS WHEREOF, the parties hereto have executed this **Agreement** in duplicate originals by their respective duly authorized officers hereunto, on the day and year hereinafter written. Any communication or notice to be given shall be forwarded to the respective addresses listed below.

For the **IC**:

(b)(6)

17 FEB 2017

Name Michael R. Mowatt, Ph.D. Date
Title Director
Office Technology Transfer and Intellectual Property Office
National Institutes of Health

Mailing Address or E-mail Address for **Agreement** notices and reports:

License Compliance and Administration
Monitoring & Enforcement Branch
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For **HUMABS** (Upon information and belief, the undersigned expressly certifies or affirms that the contents of any

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Mailing Address:

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A-481-2016

A-138-2017

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A-481-2016

A-138-2017

Any false or misleading statements made, presented, or submitted to the **Government**, including any relevant omissions, under this **Agreement** and during the course of negotiation of this **Agreement** are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) or imprisonment).

(b)(6)

PUBLIC HEALTH SERVICE

PATENT LICENSE-NON-EXCLUSIVE

This **Agreement** is based on the model Patent License Non-exclusive Agreement adopted by the U.S. Public Health Service ("**PHS**") Technology Transfer Policy Board for use by components of the National Institutes of Health ("**NIH**"), the Centers for Disease Control and Prevention ("**CDC**"), and the Food and Drug Administration ("FDA"), which are agencies of the **PHS** within the Department of Health and Human Services ("**HHS**").

This Cover Page identifies the Parties to this **Agreement**:

The U.S. Department of Health and Human Services, as represented by
National Institute of Allergy and Infectious Diseases
an Institute or Center (hereinafter referred to as the "**NIAID**") of the
National Institutes of Health

and

Mapp Biopharmaceutical, Inc.,
hereinafter referred to as the "**Licensee**",
having offices at 6160 Lusk Blvd #C200, San Diego, CA 92121,
created and operating under the laws of the State of Delaware.
Tax ID No.: 20-0037593

For the **NIAID** internal use only:

License Number: L-147-2019
License Application Number: A-477-2018

Serial Number(s) of Licensed Patent(s) or Patent Application(s):

NIH Ref. Nos. E-278-2016/0, 1, 2, titled "Antibodies that Neutralize Ebola Virus and Uses Thereof", by Lanzavechia and Sullivan et al. (NIAID/VRC):

- U.S. Provisional Patent Application 62/080,094, filed 14 November 2014
- PCT/IB2015/002342 (published as WO/2016/075546), filed 13 November 2015

NIH Ref. Nos. E-045-2015/0, 1, 2, 3, 4, titled "Neutralizing Antibodies to Ebolavirus Glycoprotein and Their Use", by Sullivan et al. (NIAID/VRC):

- U.S. Provisional Patent Application 62/087,087, filed 03 December 2014
- PCT/US2015/060733 (published as WO2016077789), filed 13 November 2015
- US Patent Application 15/526,661, filed 12 May 2017
- EP Patent Application 15797815.6, filed 12 May 2017

Licensee: Mapp Biopharmaceutical, Inc.

Cooperative Research and Development Agreement (CRADA) Number (if a subject invention): N/A

Additional Remarks:

- Inter-Institutional Agreement (L-136-2017/L-143-2017) - NIAID Lead between NIAID, the Institute of Research in Biomedicine (IRB) and Humabs BioMed SA (Humabs) for intellectual property claiming Ebola monoclonal antibodies developed under an RCA between IRB and NIAID (NIAID SOPHIA Ref. #2007-0166) and as described in **NIH** Ref. Nos. E-278-2016 and E-045-2015.

- Inter-Institutional Agreement (L-171-2018) - NIAID Lead between NIAID, USAMRIID for intellectual property claiming Ebola monoclonal antibodies as described **NIH** Ref. Nos. E-278-2016 and E-045-2015.

Public Benefit(s): Development of neutralizing monoclonal antibodies against Ebolavirus glycoprotein directed against Ebola virus infections and disease in mammals.

This Patent License Agreement, hereinafter referred to as the "**Agreement**", consists of the following:

a Cover Page
an attached **Agreement**
a Signature Page
Appendix A (List of Patent(s) or Patent Application(s))
Appendix B (Licensed Materials)
Appendix C (Fields of Use and Territory)
Appendix D (Royalties)
Appendix E ((Benchmarks and Performance)
Appendix F (Commercial Development Plan)
Appendix G (Example Royalty Report)
Appendix F (Royalty Payment Options)

The **NIAID** and the **Licensee** agree as follows:

1. BACKGROUND

1.1 In the course of conducting biomedical and behavioral research, the **NIAID** investigators made inventions that may have commercial applicability.

1.2 By assignment of rights from the **NIAID** employees and other inventors, **HHS**, on behalf of the **Government**, owns intellectual property rights claimed in any United States or foreign patent applications or patents corresponding to the assigned inventions. **HHS** also owns any tangible embodiments of these inventions actually reduced to practice by the **NIAID**.

1.3 The Secretary of **HHS** has delegated to the **NIAID** the authority to enter into this **Agreement** for the licensing of rights to these inventions under 35 U.S.C. §§200-212, the Federal Technology Transfer Act of 1986, 15 U.S.C. §3710(a), and the regulations governing the licensing of Government-owned inventions, 37 C.F.R. Part 404.

1.4 The **NIAID** desires to transfer these inventions to the private sector through commercialization licenses to facilitate the commercial development of products and processes for public use and benefit.

1.5 The **Licensee** desires to acquire commercialization rights to certain of these inventions in order to develop processes, methods, or marketable products for public use and benefit.

1.6 (b)(4)

2. DEFINITIONS

2.1 "**Affiliate(s)**" means a corporation or other business entity, which directly or indirectly is controlled by or controls, or is under common control with the **Licensee**. For this purpose, the term "control" shall mean ownership of more than fifty percent (50%) of the voting stock or other ownership interest of the corporation or other business entity, or the power to elect or appoint more than fifty percent (50%) of the members of the governing body of the corporation or other business entity.

2.2 "**Benchmarks**" mean the performance milestones that are set forth in Appendix D.

2.3 (b)(4)

2.4 "**Commercial Development Plan**" means the written commercialization plan attached as Appendix F.

2.5 (b)(4)

2.6 "**First Commercial Sale**" means the initial transfer by or on behalf of the **Licensee** of **Licensed Products** or the initial practice of a **Licensed Process** by or on behalf of the **Licensee** in exchange for cash or some equivalent to which value can be assigned for the purpose of determining **Net Sales**.

2.7 "**FDA**" means the Food and Drug Administration.

2.8 "**Government**" means the Government of the United States of America.

2.9 (b)(4)

2.10 (b)(4)

2.11 "**Licensed Fields of Use**" means the fields of use identified in Appendix C.

2.12 "**Licensed** (b)(4)

2.13 (b)(4)

(b)(4) Patent Rights (b)(4)

(b)(4)

2.14 (b)(4) **Patent** (b)(4) applications (including provisional patent applications and PCT patent applications) or patents listed in Appendix A, and (b)(4)

(b)(4) all (b)(4) and continuations of these applications, all (b)(4)

(b)(4)

(b)(4) all patents issuing from these applications, (b)(4) and continuations, and any reissues, reexaminations, and extensions of all these patents.

2.15 "**Licensed Processes**" means processes, which in the course of being practiced, would be within the scope of one or more claims of the **Licensed Patent Rights** that have not been held unpatentable, invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

2.16 "**Licensed Products**" means (b)(4) angible materials, which in the course of manufacture, use, sale, or importation, would be within the scope of one or more claims of the **Licensed Patent Rights** that have not been held unpatentable, invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

2.17 "**Licensed Territory**" means the geographical area identified in Appendix C.

2.18 (b)(4)

2.19 (b)(4)

2.20 "**Net Sales**" means the total gross receipts for sales of **Licensed Products** or practice of **Licensed Processes** by or on behalf of the **Licensee**, and from leasing, renting, or otherwise making **Licensed Products** available to others without sale or other dispositions, whether invoiced or not, less returns and allowances, packing costs, insurance costs, freight out, taxes or excise duties imposed on the transaction (if separately invoiced), and wholesaler and cash discounts in amounts customary in the trade to the extent actually granted. No deductions shall be made for commissions paid to individuals, whether they are with independent sales agencies or regularly employed by the **Licensee**, and on its payroll, or for the cost of collections. (b)(4)

(b)(4)

(a) (b)(4)

(b) (b)(4)

(b)(4)

(b)(4)

(b)(4)

2.24 "**Practical Application**" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and in each case, under these conditions as to establish that the invention is being utilized and that its benefits are to the extent permitted by law or **Government** regulations available to the public on reasonable terms.

(b)(4)

(b)(4)

(b)(4)

(b)(4)

(b)(4)

3. GRANT OF RIGHTS

3.1 The **NIAID** hereby grants and the **Licensee** accepts, subject to the terms and conditions of this **Agreement**, a nonexclusive license under the **Licensed Patent Rights** in the **Licensed Territory** to make and have made, to use and have used, to sell and have sold, to offer to sell, and to import any **Licensed Products** in the **Licensed Fields of Use** and to practice and have practiced any **Licensed Processes** in the **Licensed Fields of Use**.

3.2 (b)(4)

3.3 (b)(4)

3.4 This **Agreement** confers no license or rights by implication, estoppel, or otherwise under any patent applications or patents of the **NIAID** other than the **Licensed Patent Rights** regardless of whether these patents are dominant or subordinate to the **Licensed Patent Rights**.

4. SUBLICENSING

4.1 The **Licensee** has no right to sublicense (b)(4)

5. STATUTORY AND NIH REQUIREMENTS AND RESERVED GOVERNMENT RIGHTS

5.1 Prior to the **First Commercial Sale**, the **Licensee** agrees to provide the **NIAID** with reasonable quantities, (b)(4) of **Licensed Products** or materials made through the **Licensed Processes** for **NIAID** research use. (b)(4)
(b)(4)

5.2 The **Licensee** agrees that products used or sold in the United States embodying **Licensed Products** or produced through use of **Licensed Processes** shall be manufactured substantially in the United States, unless a written waiver is obtained in advance from the **NIAID**.

6. ROYALTIES AND REIMBURSEMENT

6.1 The **Licensee** agrees to pay the **NIAID** a non-creditable, non-refundable license issue royalty as set forth in Appendix (b)(4)

6.2 The **Licensee** agrees to pay the **NIAID** a minimum annual royalty as set forth in Appendix (b)(4)
(b)(4)

6.3 The **Licensee** agrees to pay the **NIAID** earned royalties as set forth in Appendix (b)(4)

6.4 The **Licensee** agrees to pay the **NIAID** benchmark royalties as set forth in Appendix (b)(4)

6.5 A patent or patent application licensed under this **Agreement** shall cease to fall within the **Licensed Patent Rights** for the purpose of computing earned royalty payments in any given country on the earliest of the dates that:

(a) the application has been abandoned and not continued;

(b) the patent expires or irrevocably lapses; or

(c) the patent has been held to be invalid or unenforceable by an unappealed or unappealable decision of a court of competent jurisdiction or administrative agency.

6.6 No multiple royalties shall be payable because any **Licensed Products** or **Licensed Processes** are covered by more than one of the **Licensed Patent Rights**.

6.7 On sales of **Licensed Products** by the **Licensee** made in other than an arms-length transaction, the value of the **Net Sales** attributed under this Article 6 to this transaction shall be that which would have been received in an arms-length transaction, based on sales of like quantity and quality products on or about the time of this transaction.

6.8 With regard to unreimbursed expenses associated with the preparation, filing, prosecution, and maintenance of all patent applications and patents included within the **Licensed Patent Rights** and paid by the **NIAID** (b)(4) he effective date of this **Agreement**, the **Licensee** (b)(4)
(b)(4)

6.9 (b)(4)

(a) to pay the **NIAID** on an annual basis, within sixty (60) days of the **NIAID's** submission of a statement and request for payment, a royalty amount equivalent to these unreimbursed expenses paid during the previous calendar year(s);

(b) to pay (b)(4) of these expenses (b)(4)
(b)(4) directly to the law firm employed by the **NIAID** to handle these functions. However, in this event, the **NIAID** and not the **Licensee** shall be the client of the law firm; or

(c) under exceptional circumstances, the **Licensee** may be given the right to assume responsibility for the preparation, filing, prosecution, or maintenance of any patent application or patent included with the **Licensed Patent Rights**. In that event, the **Licensee** shall directly pay the attorneys or agents engaged to prepare, file, prosecute, or maintain these patent applications or patents and shall provide the **NIAID** with copies of each invoice associated with these services as well as documentation that these invoices have been paid.

6.10 The **NIAID** agrees upon written request to provide the **Licensee** with summaries of patent prosecution invoices for which the **NIAID** has requested payment from the **Licensee** under Paragraphs 6.8 and 6.9. The **Licensee** agrees that all information provided by the **NIAID** related to patent prosecution costs shall be treated as confidential commercial information and shall not be released to a third party except as required by law or a court of competent jurisdiction.

6.11 The **Licensee** may elect to surrender its rights in any country of the **Licensed Territory** under any of the **Licensed Patent Rights** upon sixty (60) days written notice to the **NIAID** and owe no payment obligation under Paragraph 6.9 for patent-related expenses paid in that country after the effective date of the written notice.

(b)(4)

7. PATENT FILING, PROSECUTION, AND MAINTENANCE

7.1 The **NIAID** agrees to take responsibility for the preparation, filing, prosecution, and maintenance of any and all patent applications or patents included in the **Licensed Patent Rights.** (b)(4)
(b)(4)

8. RECORD KEEPING

8.1 The **Licensee** agrees to keep accurate and correct records of **Licensed Products** made, used, sold, or imported and **Licensed Processes** practiced under this **Agreement** appropriate to determine the amount of royalties due the **NIAID**. These records shall be retained for at least five (5) years following a given reporting period and shall be available during normal business hours for inspection, at the expense of the **NIAID**, by an accountant or other designated auditor selected by the **NIAID** for the sole purpose of verifying reports and royalty payments hereunder. The accountant or auditor shall only disclose to the **NIAID** information relating to the accuracy of reports and royalty payments made under this **Agreement**. If an inspection shows an underreporting or underpayment in excess of five percent (5%) for any twelve (12) month period, then the **Licensee** shall reimburse the **NIAID** for the cost of the inspection at the time the **Licensee** pays the unreported royalties, including any additional royalties as required by Paragraph 9.7. All royalty payments required under this Paragraph shall be due within sixty (60) days of the date the **NIAID** provides the **Licensee** notice of the payment due.

9. REPORTS ON PROGRESS, BENCHMARKS, SALES, AND PAYMENTS

9.1 Prior to signing this **Agreement**, the **Licensee** has provided the **NIAID** with the **Commercial Development Plan** in Appendix F, under which the **Licensee** intends to bring the subject matter of the **Licensed Patent Rights** to the point of **Practical Application**. This **Commercial Development Plan** is hereby incorporated by reference into this **Agreement**. Based on this plan, performance **Benchmarks** are determined as specified in Appendix (b)(4)

9.2 The **Licensee** shall provide written annual reports on its product development progress or efforts to commercialize under the **Commercial Development Plan** for each of the **Licensed Fields of Use** within sixty (60) days after December 31 of each calendar year. These progress reports shall include, but not be limited to: progress on research and development, status of applications for regulatory approvals, manufacture, marketing, importing, and sales during the preceding calendar year, as well as, plans for the present calendar year. The **NIAID** also encourages these reports to include information on any of the **Licensee's** public service activities that relate to the **Licensed Patent Rights**. If reported progress differs from that projected in the **Commercial Development Plan** and **Benchmarks**, the **Licensee** shall explain the reasons for such differences. In any annual report, the **Licensee** may propose amendments to the **Commercial Development Plan**, acceptance of which by the **NIAID** may not be (b)(4) denied unreasonably. The **Licensee** agrees to provide any additional information reasonably required by the **NIAID** to evaluate the **Licensee's** performance under this **Agreement**. The **Licensee** may amend the **Benchmarks** at any time upon written approval by the **NIAID,** (b)(4)
The **NIAID** shall not unreasonably withhold approval of any request of the **Licensee** to extend the time periods of this schedule if the request is supported by a reasonable showing by the **Licensee** of diligence in its performance under the **Commercial Development Plan** and toward bringing the **Licensed Products** to the point of **Practical Application**.

9.3 The **Licensee** shall report to the **NIAID** the dates for achieving **Benchmarks** specified in Appendix (b)(and the **First Commercial Sale** in each country in the **Licensed Territory** within thirty (30) days of such occurrences.

9.4 The **Licensee** shall submit to the **NIAID**, within sixty (60) days after each calendar half-year ending June 30 and December 31, a royalty report, as described in the example in Appendix (b)(setting forth for the preceding half-year period the amount of the **Licensed Products** sold or **Licensed Processes** practiced by or on behalf of the **Licensee** in each country within the **Licensed Territory**, the **Net Sales**, and the amount of royalty accordingly due. With each royalty report, the **Licensee** shall submit payment of earned royalties due. If no earned royalties are due to the **NIAID** for any reporting period, the written report shall so state. The royalty report shall be certified as correct by an authorized officer of the **Licensee** and shall include a detailed listing of all deductions made under Paragraph 2.12 to determine **Net Sales** made under Article 6 to determine royalties due.

9.5 Royalties due under Article 6 shall be paid in U.S. dollars and payment options are listed in Appendix (b) For conversion of foreign currency to U.S. dollars, the conversion rate shall be the New York foreign exchange rate quoted in *The Wall Street Journal* on the day that the payment is due, and any loss of exchange, value, taxes, or other expenses incurred in the transfer or conversion to U.S. dollars shall be paid entirely by the **Licensee**. The royalty report required by Paragraph 9.4 shall be mailed to the **NIAID** at its address for **Agreement** Notices indicated on the Signature Page.

9.6 The **Licensee** shall be solely responsible for determining if any tax on royalty income is owed outside the United States and shall pay this tax and be responsible for all filings with appropriate agencies of foreign governments.

9.7 Additional royalties may be assessed by the **NIAID** on any payment that is more than ninety (90) days overdue at the rate of one percent (1%) per month. This one percent (1%) per month rate may be applied retroactively from the original due date until the date of receipt by the **NIAID** of the overdue payment and additional royalties. The payment of any additional royalties shall not prevent the **NIAID** from exercising any other rights it may have as a consequence of the lateness of any payment.

9.8 All plans and reports required by this Article 9 and marked "confidential" by the **Licensee** shall, to the extent permitted by law, be treated by the **NIAID** as commercial and financial information obtained from a person and as privileged and confidential, and any proposed disclosure of these records by the **NIAID** under the Freedom of Information Act (FOIA), 5 U.S.C. §552 shall be subject to the predisclosure notification requirements of 45 C.F.R. §5.65(d).

10. PERFORMANCE

10.1 The **Licensee** shall use its reasonable commercial efforts to bring the **Licensed Products** and **Licensed Processes** to **Practical Application**. "Reasonable commercial efforts" for the purposes of this provision shall include adherence to the **Commercial Development Plan** in Appendix F and performance of the **Benchmarks** in Appendix E.

10.2 Upon the **First Commercial Sale**, until the expiration or termination of this **Agreement**, the **Licensee** shall use its reasonable commercial efforts to make **Licensed Products** and **Licensed Processes** reasonably accessible to the United States public.

10.3 The **Licensee** agrees, after its **First Commercial Sale,** to make reasonable quantities of **Licensed Products** or materials produced through the use of **Licensed Processes** available (b)(4)

(b)(4)

10.4 The **Licensee** agrees, after its **First Commercial Sale** and as part of its marketing and product promotion, to develop educational materials (e.g., brochures, website, etc.) directed to patients and physicians detailing the **Licensed Products** or medical aspects of the therapeutic uses of the **Licensed Products**.

10.5 The **Licensee** agrees to supply, to the Mailing Address for **Agreement** Notices indicated on the Signature Page, the Office of Technology Transfer, the **NIH** with inert samples of the **Licensed Products** or **Licensed Processes** or their packaging for educational and display purposes only.

11. INFRINGEMENT AND PATENT ENFORCEMENT

11.1 The **NIAID** and the **Licensee** agree to notify each other promptly of each infringement or possible infringement of the **Licensed Patent Rights**, as well as, any facts which may affect the validity, scope, or enforceability of the **Licensed Patent Rights** of which either Party becomes aware.

11.2 In the event that a declaratory judgment action alleging invalidity of any of the **Licensed Patent Rights** shall be brought against the **NIAID**, the **NIAID** agrees to notify the **Licensee** that an action alleging invalidity has been brought. The **NIAID** does not represent that it shall commence legal action to defend against a declaratory action alleging invalidity. The **Licensee** shall take no action to compel the **Government** either to initiate or to join in any declaratory judgment action. Should the **Government** be made a party to any suit by motion or any other action of the **Licensee**, the **Licensee** shall reimburse the **Government** for any costs, expenses, or fees, which the **Government** incurs as a result of the motion or other action. Upon the **Licensee's** payment of all costs incurred by the **Government** as a result of the **Licensee's** joinder motion or other action, these actions by the **Licensee** shall not be considered a default in the performance of any material obligation under this **Agreement**.

12. NEGATION OF WARRANTIES AND INDEMNIFICATION

12.1 The **NIAID** offers no warranties other than those specified in Article 1:

(b)(4)

12.2 The **NIAID** does not warrant the validity of the **Licensed Patent Rights** and makes no representations whatsoever with regard to the scope of the **Licensed Patent Rights**, or that the **Licensed Patent Rights** may be exploited without infringing other patents or other intellectual property rights of third parties.

12.3 THE **NIAID** MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY SUBJECT MATTER DEFINED BY THE CLAIMS OF THE **LICENSED PATENT RIGHTS** OR TANGIBLE MATERIALS RELATED THERETO.

12.4 The **NIAID** does not represent that it shall commence legal actions against third parties infringing the **Licensed Patent Rights**.

12.5 (b)(4)

(a) the use by or on behalf of the **Licensee**, its directors, employees, or third parties of any **Licensed Patent Rights**; or

(b) the design, manufacture, distribution, or use of any **Licensed Products**, **Licensed Processes** or materials by the **Licensee**, or other products or processes developed in connection with or arising out of the **Licensed Patent Rights**.

12.6 (b)(4)

12.7 The **Licensee** agrees to maintain a liability insurance program consistent with sound business practice.

13. TERM, TERMINATION, AND MODIFICATION OF RIGHTS

13.1 This **Agreement** is effective when signed by all parties, unless the provisions of Paragraph 14.15 are not fulfilled, and shall extend on a (b)(4) to the (b)(4) (b)(4) expiration of the last to expire of the **Licensed Patent Rights** unless sooner terminated as provided in this Article 13.

13.2 In the event that the **Licensee** is in default in the performance of any material obligations under this **Agreement**, including but not limited to the obligations listed in Paragraph 13.5, and if the default has not been remedied within ninety (90) days after the date of notice in writing of the default, the **NIAID** may terminate this **Agreement** by written notice and pursue outstanding royalties owed through procedures provided by the Federal Debt Collection Act.

13.3 In the event that the **Licensee** becomes insolvent, files a petition in bankruptcy, has such a petition filed against it, determines to file a petition in bankruptcy, or receives notice of a third party's intention to file an involuntary petition in bankruptcy, the **Licensee** shall immediately notify the **NIAID** in writing.

13.4 The **Licensee** shall have a unilateral right to terminate this **Agreement** in any country or territory by giving the **NIAID** sixty (60) days written notice to that effect.

13.5 The **NIAID** shall specifically have the right to terminate or modify, at its option, this **Agreement**, if the **NIAID** determines that the **Licensee**:

(a) is not executing the **Commercial Development Plan** submitted with its request for a license and the **Licensee** cannot otherwise demonstrate to the **NIAID's** satisfaction that the **Licensee** has taken, or can be expected to take within a reasonable time, effective steps to achieve **Practical Application** of the **Licensed Products** or **Licensed Processes**;

(b) has not achieved the **Benchmarks** as may be modified under Paragraph 9.2;

(c) has willfully made a false statement of, or willfully omitted, a material fact in the license application or in any report required by this **Agreement**;

(d) has committed a material breach of a covenant or agreement contained in this **Agreement**;

(e) is not keeping **Licensed Products** or **Licensed Processes** reasonably available to the public after commercial use commences;

(f) cannot reasonably satisfy unmet health and safety needs; or

(g) cannot reasonably justify a failure to comply with the domestic production requirement of Paragraph 5.2, unless waived.

13.6 In making the determination referenced in Paragraph 13.5, the **NIAID** shall take into account the normal course of such commercial development programs conducted with sound and reasonable business practices and judgment and the annual reports submitted by the **Licensee** under Paragraph 9.2. Prior to invoking termination or modification of this **Agreement** under Paragraph 13.5, the **NIAID** shall give written notice to the **Licensee** providing the **Licensee** specific notice of, and a ninety (90) day opportunity to respond to, the **NIAID's** concerns as to the items referenced in 13.5(a)-13.5(g). If the **Licensee** fails to alleviate the **NIAID's** concerns as to the items referenced in 13.5(a)-13.5(g) or fails to initiate corrective action to the **NIAID's** satisfaction, the **NIAID** may terminate this **Agreement**.

13.7 The **NIAID** reserves the right according to 35 U.S.C. §209(d)(3) to terminate or modify this **Agreement** if it is determined that the action is necessary to meet the requirements for public use specified by federal regulations issued after the date of the license and these requirements are not reasonably satisfied by the **Licensee**.

13.8 Within thirty (30) days of receipt of written notice of the **NIAID's** unilateral decision to modify or terminate this **Agreement**, the **Licensee** may, consistent with the provisions of 37 C.F.R. §404.11, appeal the decision by written submission to the designated the **NIAID** official. The decision of the designated **NIAID** official shall be the final agency decision. The **Licensee** may thereafter exercise any and all administrative or judicial remedies that may be available.

13.9 Within ninety (90) days of expiration or termination of this **Agreement** under this Article 13, a final report shall be submitted by the **Licensee**. Any royalty payments, including those incurred but not yet paid (such as the full minimum annual royalty), and those related to patent expense, due to the **NIAID** shall become immediately due and payable upon termination or expiration. Unless otherwise specifically provided for under this **Agreement**, upon termination or expiration of this **Agreement**, the **Licensee** shall return all **Licensed Products** or other materials included within the **Licensed Patent Rights** to the **NIAID** (b)(4)

(b)(4)

(b)(4) licenses if the final reporting requirement is not fulfilled.

14. GENERAL PROVISIONS

14.1 Neither party may waive or release any of its rights or interests in this **Agreement** except in writing. The failure of the **Government** to assert a right hereunder or to insist upon compliance with any term or condition of this **Agreement** shall not constitute a waiver of that right by the **Government** or excuse a similar subsequent failure to perform any of these terms or conditions by the **Licensee**.

14.2 This **Agreement** constitutes the entire agreement between the Parties relating to the subject matter of the **Licensed Patent Rights**, **Licensed Products** and **Licensed Processes**, and all prior negotiations, representations, agreements, and understandings are merged into, extinguished by, and completely expressed by this **Agreement**.

14.3 The provisions of this **Agreement** are severable, and in the event that any provision of this **Agreement** shall be determined to be invalid or unenforceable under any controlling body of law, this determination shall not in any way affect the validity or enforceability of the remaining provisions of this **Agreement**.

14.4 If either party desires a modification to this **Agreement**, the parties shall, upon reasonable notice of the proposed modification by the party desiring the change, confer in good faith to determine the desirability of the modification. No modification shall be effective until a written amendment is signed by the signatories to this **Agreement** or their designees.

14.5 The construction, validity, performance, and effect of this **Agreement** shall be governed by Federal law as applied by the Federal courts in the District of Columbia.

14.6 All **Agreement** notices required or permitted by this **Agreement** shall be given by prepaid, first class, registered or certified mail or by an express/overnight delivery service provided by a commercial carrier, properly addressed to the other party at the address designated on the Signature Page, or to any other address as may be designated in writing by such other party. **Agreement** notices shall be considered timely if such notices are received on or before the established deadline date or sent on or before the deadline date as verifiable by U.S. Postal Service postmark or dated receipt from a commercial carrier. Parties should request a legibly dated U.S. Postal Service postmark or obtain a dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.

14.7 This **Agreement** shall not be assigned or otherwise transferred (including any transfer by legal process or by operation of law, and any transfer in bankruptcy or insolvency, or in any other compulsory procedure or order of court) except to the **Licensee's Affiliate(s)** without the prior written consent of the **NIAID**. The parties agree that the identity of the parties is material to the formation of this **Agreement** and that the obligations under this **Agreement** are nondelegable. In the event that the **NIAID** approves a proposed assignment, the **Licensee** shall pay the **NIAID**, as an additional royalty, one percent (1%) of the fair market value of any consideration received for any assignment of this Agreement within sixty (60) days of the assignment.

14.8 The **Licensee** agrees in its use of any **NIAID** -supplied materials to comply with all applicable statutes, regulations, and guidelines, including **NIH** and **HHS** regulations and guidelines. The **Licensee** agrees not to use the materials for research involving human subjects or clinical trials in the United States without complying with 21 C.F.R. Part 50 and 45 C.F.R. Part 46. The **Licensee** agrees not to use the materials for research involving human subjects or clinical trials outside of the United States without notifying the **NIAID**, in writing, of the research or trials and complying with the applicable regulations of the appropriate national control authorities. Written notification to the **NIAID** of research involving human subjects or clinical trials outside of the United States shall be given no later than sixty (60) days prior to commencement of the research or trials.

14.9 The **Licensee** acknowledges that it is subject to and agrees to abide by the United States laws and regulations (including the Export Administration Act of 1979 and Arms Export Control Act) controlling the export of technical data, computer software, laboratory prototypes, biological materials, and other commodities. The transfer of these items may require a license from the appropriate agency of the **Government** or written assurances by the **Licensee** that it shall not export these items to certain foreign countries without prior approval of the agency. The **NIAID** neither represents that a license is or is not required or that, if required, it shall be issued.

14.10 The **Licensee** agrees to mark the **Licensed Products** or their packaging sold in the United States with all applicable U.S. patent numbers and similarly to indicate "Patent Pending" status. All **Licensed Products** manufactured in, shipped to, or sold in other countries shall be marked in a manner to preserve the **NIAID** patent rights in those countries.

14.11 By entering into this **Agreement**, the **NIAID** does not directly or indirectly endorse any product or service provided, or to be provided, by the **Licensee** whether directly or indirectly related to this **Agreement**. The **Licensee** shall not state or imply that this **Agreement** is an endorsement by the **Government**, the **NIAID**, any other **Government** organizational unit, or any **Government** employee. Additionally, the **Licensee** shall not use the names of the **NIAID**, the **FDA**, **HHS**, or the **Government** or their employees in any advertising, promotional, or sales literature without the prior written approval of the **NIAID**.

14.12 The Parties agree to attempt to settle amicably any controversy or claim arising under this **Agreement** or a breach of this **Agreement**, except for appeals of modifications or termination decisions provided for in Article 13. The **Licensee** agrees first to appeal any unsettled claims or controversies to the designated **NIAID** official, or designee, whose decision shall be considered the final agency decision. Thereafter, the **Licensee** may exercise any administrative or judicial remedies that may be available.

14.13 Nothing relating to the grant of a license, nor the grant itself, shall be construed to confer upon any person any immunity from or defenses under the antitrust laws or from a charge of patent misuse, and the acquisition and use of rights pursuant to 37 C.F.R. Part 404 shall not be immunized from the operation of state or Federal law by reason of the source of the grant.

14.14 Paragraphs 6.12, 8.1, 9.6-9.8, 12.1-12.5, 13.8, 13.9, 14.12 and 14.14 of this **Agreement** shall survive termination of this **Agreement**.

14.15 The terms and conditions of this **Agreement** shall, at the **NIAID's** sole option, be considered by the **NIAID** to be withdrawn from the **Licensee's** consideration and the terms and conditions of this **Agreement**, and the **Agreement** itself to be null and void, unless this **Agreement** is executed by the **Licensee** and a fully executed original is received by the **NIAID** within sixty (60) days from the date of the **NIAID** signature found at the Signature Page.

SIGNATURES BEGIN ON NEXT PAGE

NIH PATENT LICENSE AGREEMENT – *NONEXCLUSIVE*

SIGNATURE PAGE

For the **NIAID**:

(b)(6)

2 APR 2019
Date

Michael R. Mowatt, Ph.D.
Director and NIAID TDC
Technology Transfer and Intellectual Property Office, NIAID
National Institutes of Health

Mailing Address or E-mail Address for **Agreement** notices and reports:

License Compliance and Administration
Monitoring & Enforcement
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For the **Licensee** (Upon, information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the **Licensee** made or referred to in this document are truthful and accurate.):

by: (b)(6)

May 14, 2019
Date

Larry Zeitlin
President
Mapp Biopharmaceutical, Inc.

I. Official and Mailing Address for **Agreement** notices:

Larry Zeitlin
President
Mapp Biopharmaceutical, Inc.
6160 Lusk Blvd #C200
San Diego, CA 92121
Phone: (b)(6)
Email: (b)(6)

Official and Mailing Address for **Agreement** for Financial notices (the **Licensee's** contact person for royalty payments):

(b)(6)

Mapp Biopharmaceutical, Inc.

6160 Lusk Blvd #c200
San Diego, CA 92121
Ph: (b)(6)
Email: (b)(6)

With a copy to: accounts.payable@mappbio.com

II. Mailing address and company contact person to send the **Licensed Materials** to:

Larry Zeitlin
President
Mapp Biopharmaceutical, Inc.
6160 Lusk Blvd #C200
San Diego, CA 92121
Ph: (b)(6)

III. Shipping Account number to be used for shipping costs:

FEDEX Acct (b)(4)

Any false or misleading statements made, presented, or submitted to the **Government**, including any relevant omissions, under this **Agreement** and during the course of negotiation of this **Agreement** are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) and/or imprisonment).

APPENDIX A – PATENT(S) OR PATENT APPLICATION(S)

Patent(s) or Patent Application(s):

NIH Ref. Nos. E-278-2016/0, 1, 2, titled "Antibodies that Neutralize Ebola Virus and Uses Thereof", by Antonio Lanzavechia and Sullivan et al. (NIAID/VRC):

- U.S. Provisional Patent Application 62/080,094, filed 14 November 2014
- PCT/IB2015/002342 (published as WO/2016/075546), filed 13 November 2015

NIH Ref. Nos. E-045-2015/0, 1, 2, 3, 4 titled "Neutralizing Antibodies to Ebolavirus Glycoprotein and Their Use", by Sullivan et al. (NIAID/VRC):

- U.S. Provisional Patent Application 62/087,087, filed 03 December 2014
- PCT/US2015/060733 (published as WO2016077789), filed 13 November 2015
- US Patent Application 15/526,661, filed 12 May 2017
- EP Patent Application 15797815.6, filed 12 May 2017

APPENDIX B – LICENSED MATERIALS

(b)(4)

(b)(4)

(b)(4)

APPENDIX C – LICENSED FIELDS OF USE AND TERRITORY

I. **Licensed Fields of Use:**

(b)(4)

Licensed Territory:

(b)(4)

II. **Least Developed Countries:**

(b)(4)

APPENDIX (b)(- ROYALTIES

I. The **Licensee** agrees to pay to the **NIAID** a non-creditable, non-refundable license issue royalty in the amount of (b)(4) within sixty (60) days from the effective date of this Agreement.

II. The **Licensee** agrees to pay to the **NIAID** a non-refundable minimum annual royalty as follows:

(a) (b)(4)

(b)(4)

(c) The first minimum annual royalty is due within sixty (60) days of the effective date of this **Agreement** and may be prorated according to the fraction of the calendar year remaining between the effective date of this **Agreement** and the next subsequent January 1; and

(d) Subsequent minimum annual royalty payments are due and payable on January 1 of each calendar year and may be credited against any earned royalties due for sales made in that year.

III. The **Licensee** agrees to pay the **NIAID** (b)(4) earned royalties on **Net Sales** of **Licensed Products** by or on behalf of the **Licensee** (b)(4)

(a) (b)(4)

(b)(4)

IV. The **Licensee** agrees to pay the **NIAID Benchmark** royalties within sixty (60) days of achieving each **Benchmark**:

(b)(4)

V. (b)(4)

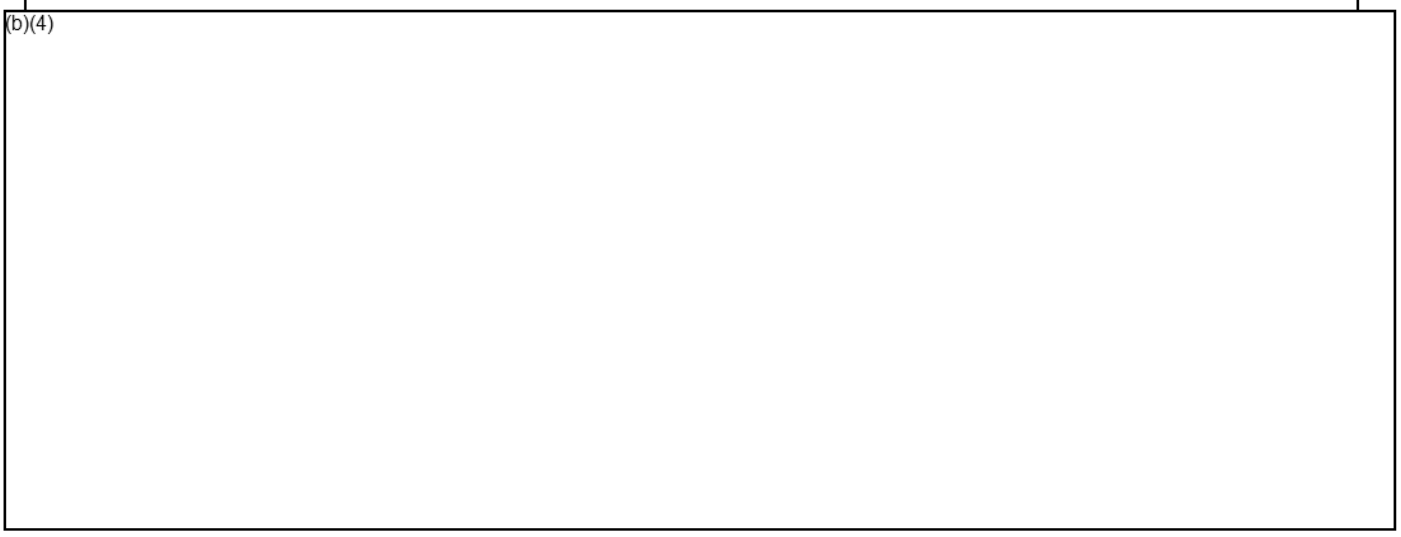
APPENDIX E – BENCHMARKS AND PERFORMANCE

The **Licensee** agrees to the following **Benchmarks** for its performance under this **Agreement** and, within thirty (30) days of achieving a **Benchmark**, shall notify the **NIAID** that the **Benchmark** has been achieved.

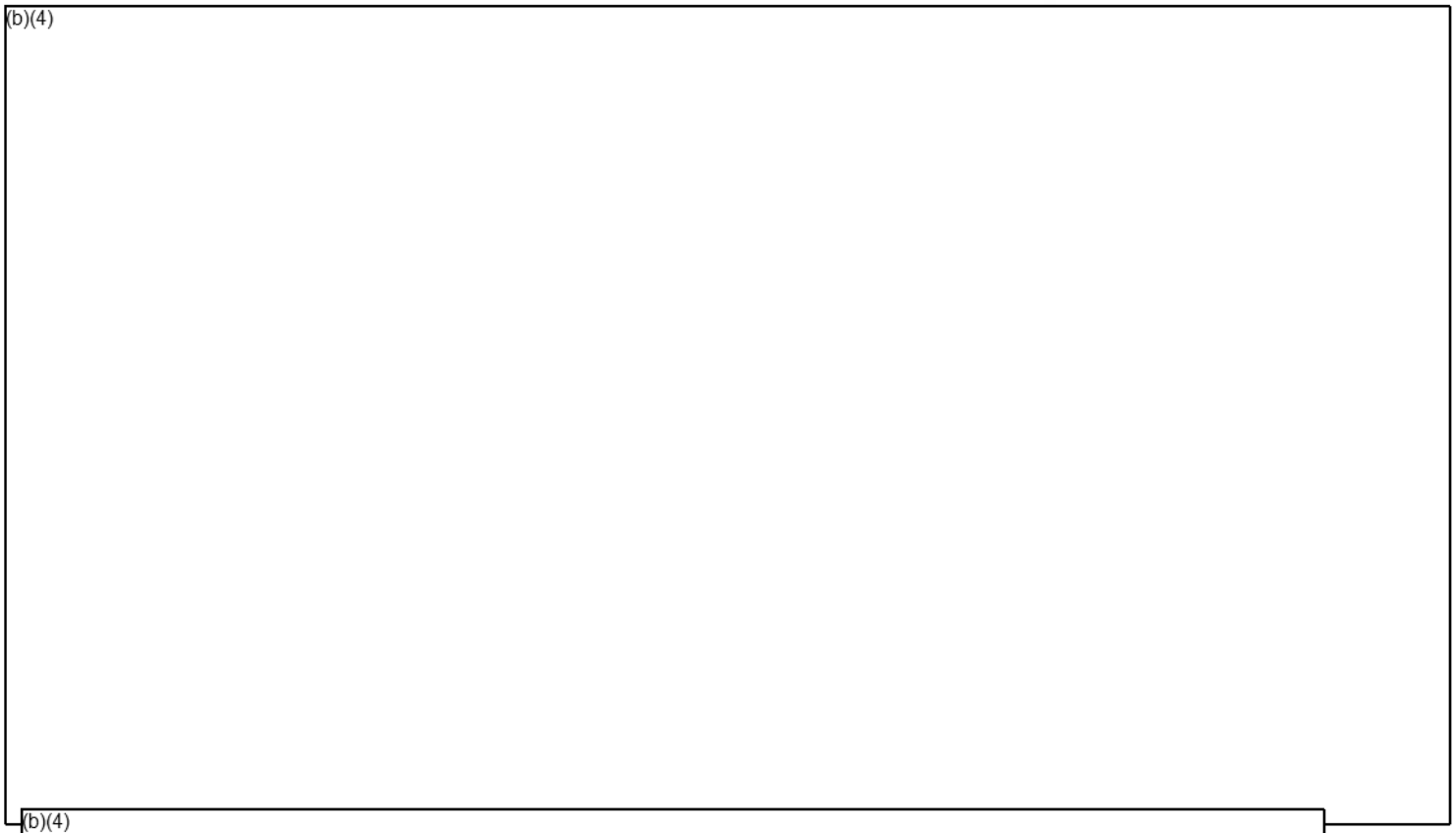
(b)(4)

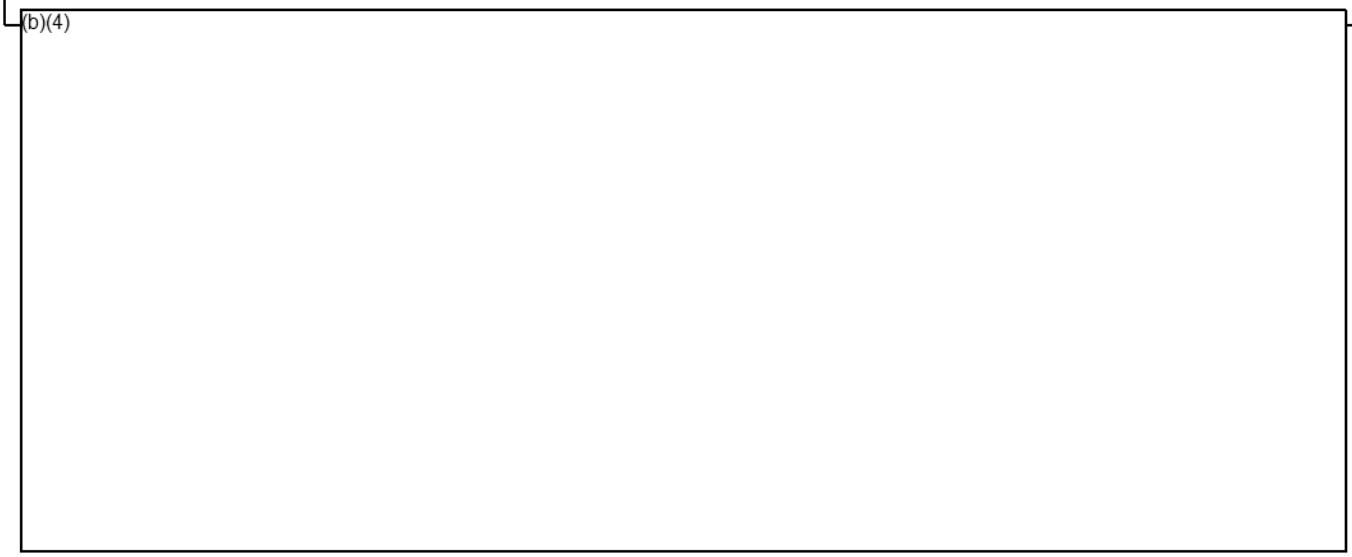
APPENDIX F – COMMERCIAL DEVELOPMENT PLAN

(b)(4)



(b)(4)


(b)(4)


(b)(4)

(b)(4)

(b)(4)

(b)(4)

APPENDIX G – EXAMPLE ROYALTY REPORT

Required royalty report information includes:

- License reference number (L-XXX-200X/0)
- Reporting period
- Catalog number and units sold of each Licensed Product (domestic and foreign)
- Gross Sales per catalog number per country
- Total Gross Sales
- Itemized deductions from Gross Sales
- Total Net Sales
- Earned Royalty Rate and associated calculations
- Gross Earned Royalty
- Adjustments for Minimum Annual Royalty (MAR) and other creditable payments made
- Net Earned Royalty due

Example

Catalog Number	Product Name	Country	Units Sold	Gross Sales (US$)
1	A	US	250	62,500
1	A	UK	32	16,500
1	A	France	25	15,625
2	B	US	0	0
3	C	US	57	57,125
4	D	US	12	1,500

Total Gross Sales	153,250
Less Deductions:	
Freight	3,000
Returns	7,000
Total Net Sales	143,250
Royalty Rate	8%
Royalty Due	11,460
Less Creditable Payments	10,000
Net Royalty Due	**1,460**

APPENDIX H – ROYALTY PAYMENT OPTIONS

New Payment Options Effective March 2018

The License Number MUST appear on payments, reports and correspondence.

Credit and Debit Card Payments: Credit and debit card payments can be submitted for amounts up to $24,999. Submit your payment through the U.S. Treasury web site located at: **https://www.pay.gov/public/form/start/28680443.**

Automated Clearing House (ACH) for payments through U.S. banks only

The **IC** encourages its licensees to submit electronic funds transfer payments through the Automated Clearing House (ACH). Submit your ACH payment through the U.S. Treasury web site located at: https://www.pay.gov/public/form/startJ28680443. Please note that the IC "only" accepts ACH payments through this U.S. Treasury web site.

Electronic Funds Wire Transfers: The following account information is provided for wire payments. In order to process payment via Electronic Funds Wire Transfer sender MUST supply the following information within the transmission:

Drawn on a **U.S. bank account** via FEDWIRE:

Please provide the following instructions to your Financial Institution for the remittance of Fedwire payments to the **NIH ROYALTY FUND**.

Fedwire Field Tag	Fedwire Field Name	Required Information
{1510}	Type/Subtype	**1000**
{2000}	Amount	*(enter payment amount)*
{3400}	Receiver ABA routing number*	(b)(4)
{3400}	Receiver ABA short name	**TREAS NYC**
{3600}	Business Function Code	**CTR** (*or CTP*)
{4200}	Beneficiary Identifier (account number)	*(enter 12 digit gateway account #)* (b)(4)
{4200}	Beneficiary Name	*(enter agency name associated with the Beneficiary Identifier)* **DHHS / NIH** (b)(4)
{5000}	Originator	*(enter the name of the originator of the payment)* **COMPANY NAME**
{6000}	Originator to Beneficiary Information – Line 1	*(enter information to identify the purpose of the payment)* **ROYALTY**
{6000}	Originator to Beneficiary Information – Line 2	*(enter information to identify the purpose of the payment)* **LICENSE NUMBER**
{6000}	Originator to Beneficiary Information – Line 3	*(enter information to identify the purpose of the payment)* ***INVOICE NUMBER***
{6000}	Originator to Beneficiary Information – Line 4	*(enter information to identify the purpose of the payment)*

Fedwire Field Tag	Fedwire Field Name	Required Information
Notes: *The financial institution address for Treasury's routing number is 33 Liberty Street, New York, NY 10045.		

Agency Contacts: Office of Technology Transfer (OTT) (301) 496-7057 OTT-Royalties@mail.nih.gov

Drawn on a **foreign bank account** via FEDWIRE:

The following instructions pertain to the Fedwire Network. Deposits made in US Dollars (USD).

Should your remitter utilize a correspondent US domestic bank in transferring electronic funds, the following Fedwire instructions are applicable.

Fedwire Field Tag	Fedwire Field Name	Required Information
{1510}	Type/Subtype	**1000**
{2000}	Amount	*(enter payment amount)*
{3100}	Sender Bank ABA routing number	*(enter the US correspondent bank's ABA routing number)*
{3400}	Receiver ABA routing number*	(b)(4)
{3400}	Receiver ABA short name	**TREAS NYC**
{3600}	Business Function Code	**CTR** *(or CTP)*
{4200}	Beneficiary Identifier (account number)**	*(enter 12 digit gateway account #)* (b)(4)
{4200}	Beneficiary Name	*(enter agency name associated with the Beneficiary Identifier)* **DHHS / NIH** (b)(4)
{5000}	Originator	*(enter the name of the originator of the payment)* **COMPANY'S NAME**
{6000}	Originator to Beneficiary Information – Line 1	*(enter information to identify the purpose of the payment)* **ROYALTY**
{6000}	Originator to Beneficiary Information – Line 2	*(enter information to identify the purpose of the payment)* **LICENSE NUMBER**
{6000}	Originator to Beneficiary Information – Line 3	*(enter information to identify the purpose of the payment)* ***INVOICE NUMBER***
{6000}	Originator to Beneficiary Information – Line 4	*(enter information to identify the purpose of the payment)*
Notes: *The financial institution address for Treasury's routing number is 33 Liberty Street, New York, NY 10045. **Anything other than the 12 digit gateway account # will cause the Fedwire to be returned – **SWIFT CODE: FRNYUS33**		

Agency Contacts:

Office of Technology Transfer (OTT) (301) 496-7057 OTT-Royalties@mail.nih.gov

Checks

All checks should be made payable to "NIH Patent Licensing"

Checks drawn on a **U.S. bank account** and sent by US Postal Service should be sent directly to the following address:

National Institutes of Health
P.O. Box 979071
St. Louis, MO 63197-9000

Checks drawn on a U.S. bank account and sent by **overnight or courier** should be sent to the following address:

US Bank
Government Lockbox SL-MO-C2GL
1005 Convention Plaza
St. Louis, MO 63101
Phone: 314-418-4087

Checks drawn on a **foreign bank account** should be sent directly to the following address:

National Institutes of Health
Office of Technology Transfer
License Compliance and Administration
Royalty Administration
6011 Executive Boulevard
Suite 325, MSC 7660
Rockville, Maryland 20852

PUBLIC HEALTH SERVICE

Amendment

This **First Amendment** is based on the model Amendment Agreement adopted by the U.S. Public Health Service ("**PHS**") Technology Transfer Policy Board for use by components of the National Institutes of Health ("**NIH**"), the Centers for Disease Control and Prevention ("**CDC**"), and the Food and Drug Administration ("**FDA**"), which are agencies of the **PHS** within the Department of Health and Human Services ("**HHS**").

The Parties to this **First Amendment** are:

The U.S. Department of Health and Human Services, as represented by
National Institute of Allergy and Infectious Diseases,
an Institute or Center (hereinafter referred to as "**NIAID**") of the
National Institutes of Health

and

Mapp Biopharmaceutical, Inc.,
hereinafter referred to as the "**Licensee**,"
having offices at 6160 Lusk Blvd #C200, San Diego, CA, 92121,
created and operating under the laws of the State of Delaware.
Tax ID No.: 20-0037593

FIRST AMENDMENT TO L-147-2019-0

This is the first amendment ("**First Amendment**") of the agreement by and between the **NIAID** and **Licensee** having an effective date of May 14, 2019 and having **NIAID** Reference Number L-147-2019-0 ("**Agreement**"). This **First Amendment**, having **NIAID** Reference Number L-147-2019-1 includes, in addition to the amendments made below, a Signature Page.

WHEREAS, **NIAID** and the **Licensee** desire that the **Agreement** be amended as set forth below in order to (b)(4)

(b)(4)

(b)(4)

(b)(4)

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein, **NIAID** and the **Licensee**, intending to be bound, hereby mutually agree to the following:

1) (b)(4)

2)

3)

4)

5)

6) (b)(4)

7) (b)(4)

8) This **First Amendment** is effective upon execution by all parties.

9) The terms and conditions of this **First Amendment** may be withdrawn at **NIAID's** discretion if it is not executed by the **Licensee** and a fully executed amendment is not received by the **IC** within (b)(4) days from the date of the **NIAID's** signature found at the Signature Page.

10) This **First Amendment** may be executed in one or more counterparts, each of which together will be deemed original but all of which together shall constitute one and the same document. A Portable Document Format (PDF) or other common format electronic file or electronic signature will constitute valid execution and delivery of this **First Amendment**.

SIGNATURES BEGIN ON NEXT PAGE

FIRST AMENDMENT TO L-147-2019-0

SIGNATURE PAGE

In Witness Whereof, the parties have executed this **First Amendment** on the dates set forth below. Any communication or notice to be given shall be forwarded to the respective addresses listed below.

For the **NIAID**:

Michael R. Mowatt -S Digitally signed by Michael R. Mowatt -S
Date: 2020.04.03 15:09:40 -04'00'

Michael R. Mowatt, Ph.D. Date
Director and NIAID TDC
Technology Transfer and Intellectual Property Office, NIAID
National Institutes of Health

Mailing Address or E-mail Address for **Agreement** notices and reports:

License Compliance and Administration
Monitoring & Enforcement
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For the **Licensee** (Upon information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the **Licensee** made or referred to in this document are truthful and accurate.):

(b)(6)

Signature of Authorized Official Date

Name: Larry Zeitlin
Title: President
Mapp Biopharmaceutical, Inc.

Mailing Address or E-mail Address for **Agreement** notices and reports:

Mapp Biopharmaceutical, Inc.
c/o (b)(6)
6160 Lusk Blvd., Suite C200
San Diego, CA 92121
E-mail: (b)(6)

Any false or misleading statements made, presented, or submitted to the **Government**, including any relevant omissions, under this **First Amendment** and during the course of negotiation of this **First Amendment** are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) or imprisonment).

PUBLIC HEALTH SERVICE

INTERINSTITUTIONAL AGREEMENT

IC-LEAD

This **Agreement** is based on the model Interinstitutional IC Lead Agreement adopted by the U.S. Public Health Service ("**PHS**") Technology Transfer Policy Board for use by components of the National Institutes of Health ("**NIH**"), the Centers for Disease Control and Prevention ("**CDC**"), and the Food and Drug Administration ("**FDA**"), which are agencies of the **PHS** within the Department of Health and Human Services ("**HHS**").

This Cover Page identifies the Parties to this **Agreement**:

The U.S. Department of Health and Human Services, as represented by
National Institute of Allergy and Infectious Diseases, an Institute or Center (hereinafter referred to as the "**IC**") of the
NIH

and

United States Army Medical Research Institute of Infectious Diseases,
a Subordinate Laboratory of the U.S. Army Medical Research and Materiel Command,
within the U.S. Department of Defense,
hereinafter referred to as "**USAMRIID**"
located at 1425 Porter Street, Fort Detrick, Maryland,
each may be referred to as a "**Party**" and one or more as "**Parties.**"

L#: L-171-2018-0
A-480-2016

1. BACKGROUND

1.1 In the course of fundamental research programs at the **IC**, **USAMRIID**, HUMABS BioMed SA (**HUMABS**), and Institute for Research in Biomedicine (**IRB**) and under a research collaboration agreement ("**RCA**") between **IC** and **IRB** (NIAID Reference Number 2007-0166) and an inter-agency agreement ("**IAA**") between IC and **USAMRIID**, Nancy Sullivan (**IC**), Sabue Mulangu (**IC**), Barney Graham (**IC**), Jean-Jacques Muyembe-Tamfun (**IC**), Julie Ledgerwood (**IC**), Daphne Stanley (**IC**), Davide Corti (**HUMABS**), Antonio Lanzavecchia (**IRB**) and John Trefry (**USAMRIID**) (hereinafter referred to as the "**Inventor(s)**") made or reduced to practice certain inventions, which are included within the **Patent Rights**, as defined in Paragraph 2.3 (b)(4)

(b)(4)

1.2 (b)(4)

1.3 (b)(4)

1.4 (b)(4)

1.5

1.6 Now it is the mutual desire of (b)(4) nd the **IC** that their respective undivided interests in the **Patent Rights** be administered in a manner to ensure the rapid commercialization of the **Patent Rights** and to make their benefits widely available to the public. Therefore, (b)(4) is granting an exclusive license under **USAMRIID's** rights in the **Patent Rights** to the **IC** under the conditions set forth herein.

2. DEFINITIONS

2.1 **"Confidential Information"** means confidential scientific, business, or financial information pertaining to the patent prosecution, commercial development, and licensing activities relating to the **"Patent Rights"**. Confidential Information does not include information that: (i) is publicly known or that is available from public sources; (ii) has been made available by its owner to others without obligation of confidentiality; (iii) is already known by the receiving Party(ies), or is independently created or compiled by the receiving Party(ies) without reference to or use of the provided information; or (iv) the owner expressly authorizes the other Party(ies) to disclose.

2.2 **"Government"** means the government of the United States of America.

2.3 **"Patent Rights"** means:

(a) Patent applications or patents as follows: U.S. Provisional Patent Application Serial No. 62/080,094, entitled "ANTIBODIES THAT NEUTRALIZE EBOLA VIRUS AND USES THEREOF" (**PHS** Reference Number E-278-2016/0-US-01), filed on 14 November 2014 by (b)(4) U.S. Provisional Patent Application Number 62/087,087, entitled "NEUTRALIZING ANTIBODIES TO EBOLA VIRUS GLYCOPROTEIN AND THEIR USE" (**PHS** Reference Number E-045-2015/0-US-01) filed on 3 December 2014 by (b)(PCT Application Number PCT/IB2015/002342, entitled "ANTIBODIES THAT NEUTRALIZE EBOLA VIRUS AND USES THEREOF," filed on 13 November 2015 by (b)(4) PCT Application Number PCT/US2015/060733, entitled "NEUTRALIZING ANTIBODIES TO EBOLAVIRUS GLYCOPROTEIN AND THEIR USE," filed on 13 November 2015 by **IC, U.S. national stage patent application Number 15/526,661, entitled** "NEUTRALIZING ANTIBODIES TO EBOLAVIRUS GLYCOPROTEIN AND THEIR USE", **filed May 12, 2017,** and any patent application(s) claiming the benefit of priority thereof including all divisions and continuations of these applications, all patents issuing from such applications, divisions, and continuations, and any reissues, reexaminations, and extensions of all such patents to the extent that at least one **Inventor** from (b)(4) s an **Inventor** thereon;

(b) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2(b)(a) and to the extent that at least one **Inventor** from (b)(4) s an **Inventor**:

(i) continuations-in-part of 2(b)(a);

(ii) all divisions and continuations of these continuations-in-part;

(iii) all patents issuing from these continuations-in-part, divisions, and continuations;

(iv) priority patent application(s) of 2(b)(a); and

(v) any reissues, reexaminations, and extensions of all these patents; and

(c) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2(b)(a) and to the extent that at least one **Inventor** from **USAMRIID** is an **Inventor**: all counterpart foreign and U.S. patent applications and patents to 2(b)(a) and 2(b)(b); and

(d) **Patent Rights** shall *not* include 2(b) b) or 2(c) c) to the extent that they contain one or more claims directed to new matter which is not the subject matter disclosed in 2.3(a).

2.4 **"Net Revenues"** means all consideration received by the **IC** from the licensing of the **Patent Rights** pursuant to this **Agreement** less (a) **Expenses** and (b) ten percent (b)(4) of the remaining (b)(4) (b)(4) n consideration for administrative overhead). In the event that a license is executed by the **IC** with a third party wherein the **Patent Rights** are licensed together with other technologies not falling under the definition of the **Patent Rights**, all consideration received by the **IC** from the licensing of the **Patent Rights** pursuant to this **Agreement** through the third-party executed license shall correspond to the **Patent Rights'** percentage contribution to the total amount received for all licensed technologies as determined by the **IC**.

2.5 **"Expenses"** means all reasonable and actual out-of-pocket costs, excluding those reimbursed by a third party, paid by the **IC** for the preparation, filing, prosecution, and licensing of United States and foreign patent applications, extraordinary expenses as provided in Paragraph 4.6, and the maintenance of the resulting patents or patent applications, exclusive of any salaries, administrative, or other indirect costs.

3. GRANT AND RESERVATION OF RIGHTS

3.1 **USAMRIID** hereby grants and the **IC** accepts, subject to the terms and conditions of this **Agreement**, an exclusive license including the right to sublicense, under the **Patent Rights** to make and have made, to use and have used, to sell and have sold, to offer to sell, and to import any tangible (b)(4) of the **Patent Rights** and to practice and have practiced any process(es) included within the **Patent Rights**.

3.2 The **Government** shall have the irrevocable, royalty-free, paid-up right to practice and have practiced the **Patent Rights** throughout the world by or on behalf of the **Government** and on behalf of any foreign government or international organization pursuant to any existing or future treaty or agreement to which the **Government** is a signatory.

4. PATENT PROSECUTION AND PROTECTION

4.1 The **IC** shall file, prosecute, and maintain patent application(s) relating to the **Patent Rights** and shall promptly provide to **USAMRIID** all serial numbers and filing dates, together with copies of all the applications, including copies of all Patent Office actions, responses, and all other Patent Office communications.

4.2 The **IC** shall make an election with respect to foreign filing, upon consultation with **USAMRIID**. If any foreign patent applications are filed, the **IC** shall promptly provide to **USAMRIID** all serial numbers and filing dates. The **IC** also shall provide to **USAMRIID** copies of foreign patent applications and Patent Office actions. The **IC** shall consult with **USAMRIID**, when so requested, prior to communication with any Patent Office with respect to the **Patent Rights**.

4.3 The **IC** shall promptly record Assignments of domestic patent rights in the United States Patent and Trademark Office and shall promptly provide **USAMRIID** with a photocopy of each recorded Assignment(s) and the (b)(4)

4.4 Notwithstanding any other provision of this **Agreement**, the **IC** shall not abandon the prosecution of any patent application, including provisional patent applications (except for purposes of filing continuation application(s)) or the maintenance of any patent contemplated by this **Agreement**, without prior written notice to **USAMRIID**. Upon receiving the written notice, **USAMRIID** may, at its sole option and expense, take over the prosecution of any patent application, or the maintenance of any patent.

4.5 The **IC** shall promptly provide **USAMRIID** with copies of all issued patents under this **Agreement**.

4.6 In the event that the **IC** anticipates the possibility of any extraordinary expenditures arising from the preparation, filing, prosecution, licensing, or defense of any patent application or patent contemplated by this **Agreement**, including, without limitation, interferences, reexaminations, reissues and oppositions, the **IC** shall provide **USAMRIID** with all relevant information and these extraordinary expenditures shall be included as **Expenses** only upon written agreement of **USAMRIID**. The **IC** and **USAMRIID** shall agree on a mutually acceptable course of action prior to incurring these expenditures.

5. LICENSING

5.1 The **IC** shall diligently seek licensees for the commercial development of the **Patent Rights** and shall administer the **Patent Rights** for the mutual benefit of the Parties and in the public interest, (b)(4) (b)(4)

5.2 The **IC** shall promptly provide **USAMRIID** with copies of all licenses and sublicenses granted for the **Patent Rights**.

6. ROYALTIES AND EXPENSES

6.1 The **IC** shall distribute **Net Revenues** to **USAMRIID** concurrently with distributions it makes under the **IC's** patent policy on the following basis: (a) (b)(4) of the **Net Revenues** as a royalty to **IC** and (c) (b)(4) the **Net Revenues** as a royalty to **USAMRIID.** (b)(4)

(b)(4)

(b)(4)

(b)(4)

6.2 (b)(4) required under this Agreement, shall be in U.S. dollars and shall be made by check or bank draft drawn on a United States bank and made payable to (b)(4) All payments to the **IC** shall be sent to the following address: (b)(4) (b)(4)

6.3 The **IC** shall submit to **USAMRIID** annual statements of itemized **Expenses**, as defined in Paragraph 2(b and shall deduct the **Expenses** as provided for in Paragraph 2.(except where **USAMRIID** has identified discrepancies in billing by the **IC**, in which case, deduction of the contested item(s), as a part of **Expenses** as provided for in Paragraph 2.4, shall be delayed pending resolution thereof.

6.4 In no event shall **USAMRIID** be obligated to bear any costs for the **Expenses** under this **Agreement**.

6.5 Each party shall be solely responsible for calculating and distributing to its respective **Inventor(s)** of the **Patent Rights** any share of the **Net Revenues** in accordance with its respective patent policy, royalty policy, or Federal law during the term of this **Agreement**.

7. RECORDS AND REPORTS

7.1 The **IC** shall keep complete, true, and accurate accounts of all **Expenses** and of all **Net Revenues** received by it from each licensee of the **Patent Rights** and shall permit **USAMRIID,** or **USAMRIID**'s designated agent to examine its books and records in order to verify the payments due or owed under this **Agreement**. This examination shall not occur more than one (1) time in any single calendar year.

7.2 The **IC** shall submit to **USAMRIID** a(b)(4) eport, not later than April 1 of each year, setting forth the status of all patent prosecution, clinical development, and licensing activity relating to the **Patent Rights** for the preceding calendar year. (b)(4)
(b)(4)

8. (b)(4)

(b)(4)

(b)(4)

(b)(4) 2016

(b)(4)

(b)(4)

9. PATENT INFRINGEMENT

9.1 In the event that (b)(4) including the **IC**'s licensees, shall learn of the substantial infringement of any (b)(4) the **Party** who learns of the infringement shall promptly notify the other **Parties** in writing and shall provide the other **Parties** with all available evidence of the infringement. The **IC** and its licensees, in cooperation with **USAMRIID**, shall use their best efforts to eliminate (b)(4) infringement (b)((b)(4) without litigation. If the efforts of the **Parties** are not successful in eliminating the infringement within ninety (90) days after the infringing party has been formally notified of the infringement by the **IC**, the **IC** shall have the right, after consulting with the other (b)(4) to commence suit on its own account.

9.2 The **IC** may permit its licensees to bring suit on their own account, and the **IC** shall retain the right to join any licensee's suit.

9.3 **USAMRIID** shall not compel the **IC** either to initiate or to join in any suit for patent infringement. Should the **Government** be made a party to any such suit by motion or any other action of the **IRB or HUMABS**, that **Party** shall reimburse the **Government** for any costs, expenses, or fees which the **Government** incurs as a result of the motion or other action, including all costs incurred by the **IC** and/or **USAMRIID** in opposing any joinder action.

9.4 Legal action or suits to eliminate infringement or recover damages pursuant to Paragraph (b) 1 shall be at the full expense of the **Party** by whom suit is brought. All damages recovered thereby shall first be used to reimburse each **Party** for its expenses related to the legal action or suit, and the remainder of the damages shall be considered **Net Revenues**.

9.5 Each **Party** agrees to cooperate with the (b)(4) in litigation proceedings (b)(4) The **IC** may be represented, at its expense, by counsel of its choice in any suit.

10. GOVERNING LAWS, SETTLING DISPUTES

10.1 This **Agreement** shall be construed in accordance with U.S. Federal law, as interpreted and applied by the U.S. Federal courts in the District of Columbia. Federal law and regulations shall preempt any conflicting or inconsistent provisions in this **Agreement**.

10.2 Any controversy or any disputed claim by (b)(4) arising under or related to this **Agreement** shall be submitted jointly to the designated **USAMRIID** official or designee and to the designated **IC** official or designee for resolution. **USAMRIID** and the **IC** shall be free after written decisions are issued by those officials to pursue any and all administrative or judicial remedies which may be available.

11. TERM AND TERMINATION

11.1 This **Agreement** is effective when signed by all **Parties**, unless the provisions of Paragraph (b)(4) are not fulfilled, and shall extend to the expiration of the last to expire of the patents included within the **Patent Rights** unless otherwise terminated by operation of law or by acts of the parties in accordance with the terms of this **Agreement**.

11.2 The **IC** may terminate this **Agreement** upon at least sixty (60) days written notice to **USAMRIID**, but in any event, not less than sixty (60) days prior to the date on which any pending Patent Office actions need be taken to preserve patent rights for the benefit of the **Parties** hereto.

11.3 **USAMRIID** may terminate this **Agreement** in whole or in part if:

(a) the **IC** fails to make payments or periodic reports required by this **Agreement**;

(b) the **IC** has committed a substantial breach of a covenant or duty contained in this **Agreement**; or

(c) the **IC** and **USAMRIID** are involved in a dispute under this **Agreement** which cannot be resolved under the procedures specified in Paragraph (b)(

11.4 If the **Agreement** is terminated under Paragraph 11.3, **USAMRIID** agrees to provide all affected licensees an opportunity to license the **Patent Rights** under such terms as may have been agreed to by the **IC**.

12. GENERAL

12.1 All **Agreement** notices required or permitted by this **Agreement** shall be given by prepaid, first class, registered or certified mail or by an express/overnight delivery service provided by a commercial carrier, properly addressed to the other party at the address designated on the following Signature Page, or to such other address as may be designated in writing by the other Parties. **Agreement** notices shall be considered timely if the notices are received on or before the established deadline date or sent on or before the deadline date as verifiable by U.S. Postal Service postmark or dated receipt from a commercial carrier. **Parties** should request a legibly dated U.S. Postal Service postmark or obtain a dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.

12.2 The **Agreement** shall not be construed to confer on any person any immunity from or defenses under the antitrust laws or from a charge of patent misuse, and the acquisition and use of rights pursuant to this **Agreement** shall not be immunized from the operation of state or Federal law by reason of the source of the grant.

12.3 It is agreed that no waiver by any **Party** hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent or similar breach or default.

12.4 This **Agreement** is binding upon and shall inure to the benefit of the **Parties** hereto, their successors or assigns, but this **Agreement** may not be assigned by any **Party** without the prior written consent of the other **Parties**.

12.5 This **Agreement** confers no license or rights by implication, estoppel, or otherwise under any patent applications or patents of the **IC** other than the **Patent Rights** regardless of whether such patents are dominant or subordinate to the **Patent Rights**.

12.6 Any modification to this **Agreement** must be in writing and agreed to by (b)(4) (b)(4)

12.7 It is understood and agreed by **USAMRIID** and the **IC** that this **Agreement** constitutes the entire agreement, both written and oral, between the **Parties**, and that all prior agreements respecting the subject matter hereof, either written or oral, expressed or implied, shall be abrogated, canceled, and are null and void and of no effect.

12.8 The terms and conditions of this **Agreement** shall, at the **IC's** sole option, be considered by the **IC** to be withdrawn from **USAMRIID's** consideration and the terms and conditions of this **Agreement**, and the **Agreement** itself to be null and void, unless this **Agreement** is executed by **USAMRIID** and a fully executed original is received by the **IC** within sixty (60) (b)(4) days from the date of the **IC's** signature found at the Signature Page.

SIGNATURES BEGIN ON NEXT PAGE

SIGNATURE PAGE

IN WITNESS WHEREOF, the parties hereto have executed this **Agreement** in duplicate originals by their respective duly authorized officers hereunto, on the day and year hereinafter written. Any communication or notice to be given shall be forwarded to the respective addresses listed below.

For the **IC**:

(b)(6)

6 JUN 2018

Michael R. Mowatt, Ph.D. Date
Director
Technology Transfer and Intellectual Property Office
National Institute of Allergy and Infectious Diseases
National Institutes of Health

Mailing Address or E-mail Address for **Agreement** notices and reports:

License Compliance and Administration
Monitoring & Enforcement Branch
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For the **USAMRIID** (Upon information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the **USAMRIID** made or referred to in this **Agreement** are truthful and accurate.)

(b)(6)

30 MAY 2018

Signature of Authorized Official Date

Gary A. Wheeler
Printed Name

Colonel, U.S. Army
Commanding

Official and Mailing Address for **Agreement** notices:

(b)(6)
Director, Medical Technology Transfer Office
United States Army Medical Research and Materiel Command
Mailing Address: 504 Scott Street MCMR-JA, Fort Detrick, MD 21702-5012

Phone: (b)(6)

Fax: (b)(6)

Official and Mailing Address for Financial notices (The **USAMRIID's** contact person for royalty payments)

(b)(6)
Technology Transfer Analyst
Mailing Address: 504 Scott Street MCMR-JA, Fort Detrick, MD 21702

Phone: (b)(6)

Fax: (b)(6)

Any false or misleading statements made, presented, or submitted to the **Government**, including any relevant omissions, under this **Agreement** and during the course of negotiation of this **Agreement** are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) or imprisonment).

PUBLIC HEALTH SERVICE

COMMERCIAL EVALUATION LICENSE AGREEMENT

This **Agreement** is based on the model Commercial Evaluation License Agreement adopted by the U.S. Public Health Service ("**PHS**") Technology Transfer Policy Board for use by components of the National Institutes of Health ("**NIH**"), the Centers for Disease Control and Prevention ("**CDC**"), and the Food and Drug Administration ("**FDA**"), which are agencies of the **PHS** within the Department of Health and Human Services ("**HHS**").

This Cover Page identifies the Parties to this **Agreement**:

The U.S. Department of Health and Human Services, as represented by
National Institute of Allergy and Infectious Diseases
an Institute or Center (hereinafter referred to as the "**IC**") of the
National Institutes of Health

and

Ridgeback Biotherapeutics LLC
hereinafter referred to as the "**Licensee**",
having offices at 2889 McFarlane Rd, #1017, Miami, FL 33133,
created and operating under the laws of the State of Delaware.
Tax ID No.:_81-2170459

1. Definitions:

   (a) **"Government"** means the government of the United States of America.

   (b) **"Licensed Patent Rights"** means PCT or U.S. patent application(s) (including provisional patent application(s)) or patents and all foreign counterparts as follows: (i) U.S. Provisional Patent Application 62/080,094, filed 14 November 2014, entitled "Antibodies that Neutralize Ebola Virus and Uses Thereof", PHS Ref. No. E-278-2016, and (ii) US. Provisional Patent Application 62/087,087, flied 03 December 2014; PCT Application PCT/US2015/060733, filed 13 November 2015; US Patent Application 15/526,661, filed 12 May 2017; and EP Patent Application 15797815.6, filed 12 May 2017, entitled "Neutralizing Antibodies to Ebolavirus Glycoprotein and Their Use", PHS Ref. No. E-045-2015.

   (c) **"Materials"** means the following materials, including all progeny, subclones, or unmodified derivatives thereof:

      (i) None

   (d) **"Licensed Products"** means neutralizing monoclonal antibodies against Ebolavirus glycoprotein and **Materials** made by the **Licensee** within the scope of the **Licensed Patent Rights.**

   (e) **"Licensed Field of Use"** means evaluation of neutralizing monoclonal antibodies against Ebolavirus glycoprotein.

2. The **Licensee** desires to obtain a license to evaluate the commercial applications of the **Materials** and the **Licensed Products** and any inventions claimed in the **Licensed Patent Rights.**

3. The **Licensee** intends to evaluate the suitability for commercial development of inventions encompassed by the **Licensed Patent Rights, Materials** or **Licensed Products** in the **Licensed Field of Use.**

4. The **Licensee** represents that it has access to the facilities, personnel, and expertise to evaluate the commercial applications of the **Materials** and the **Licensed Products** and the inventions encompassed by the **Licensed Patent Rights,** and that it shall expend reasonable efforts and resources on research and development of potential commercial products using the **Materials** or the **Licensed Products** and the inventions encompassed by the **Licensed Patent Rights.**

5. The **IC** hereby grants to the **Licensee** a nonexclusive license for evaluation purposes only, within its research facilities, to make and use *but not to sell* the **Materials** or the **Licensed Products** and products and processes encompassed within the scope of a claim in the **Licensed Patent Rights** in the **Licensed Field of Use.** The **Licensee** agrees that any commercial or industrial use or sale of any such products or processes, including any formalized in-house screening programs, other than for evaluation purposes, shall be made only pursuant to the terms of a commercialization license to be negotiated in good faith by the parties. The rights provided herein are provided for the *evaluation of commercial applications only and not for commercial use.*

6. The **IC** agrees, after receipt and verification of the license issue royalty, as required by Paragraph 9(a), to provide the **Licensee** with samples of the **Materials**, as available, and to replace the **Materials**, as available, and at reasonable cost, in the event of their unintentional destruction. The **IC** shall provide the **Materials** to the **Licensee** at the **Licensee's** expense and as specified in Appendix A.

7. The **Licensee** agrees to retain control over the **Materials** and the **Licensed Products**, and not to distribute them to third parties without the prior written consent of the **IC**.

8. This **Agreement** does not preclude the **IC** from distributing the **Materials** or **Licensed Products** to third parties for research or commercial purposes.

9. In consideration of the grant in Paragraph 5:

   (a) The **Licensee** hereby agrees to pay the **IC** a license issue royalty of (b)(4) (b)(4) and payment is due within sixty (60) days of the effective date of this **Agreement**.

   (b) This license issue royalty shall be paid in U.S. dollars and payment options are listed in Appendix B. For conversion of foreign currency to U.S. dollars, the conversion rate shall be the New York foreign exchange rate quoted in *The Wall Street Journal* on the day that the payment is due.

      i) Any loss of exchange, value, taxes, or other expenses incurred in the transfer or conversion to U.S. dollars shall be paid entirely by the **Licensee**; and

      ii) Additional royalties may be assessed by the **IC** on any payment that is more than ninety (90) days overdue at the rate of one percent (1%) per month. This one percent (1%) per month rate may be applied retroactively from the original due date until the date of receipt by the **IC** of the overdue payment and additional royalties. The payment of any additional royalties shall not prevent the **IC** from exercising any other rights it may have as a consequence of the lateness of any payment.

10. This **Agreement** shall become effective on the date when the last party to sign has executed this **Agreement**, unless the provisions of Paragraph 24 are not fulfilled, and shall expire (b)(4) months from its effective date. Within thirty (30) days of the termination or expiration of this **Agreement**, the **Licensee** shall return all **Materials** and **Licensed Products** to the **IC** or provide the **IC** with written certification of their destruction, unless the **Licensee** has executed a commercialization license for the **Licensed Patent Rights**.

11. In the event that the **Licensee** is in default in the performance of any material obligation under this **Agreement**, and if the default has not been remedied within ninety (90) days after the date of written notice of the default, the **IC** may terminate this **Agreement** by written notice.

12. The **Licensee** acknowledges that third parties also may be evaluating the **Licensed Patent Rights**, the **Licensed Products**, or the **Materials** for a variety of commercial purposes, and no guarantee can be made, should the **Licensee** apply for a license, that such a license would be available for any particular field of use. The **IC** agrees to notify the **Licensee** promptly if it receives from another company an exclusive license application in the **Licensed Field of Use**.

13. The **Licensee** is encouraged to publish the results of its research projects using the **Licensed Products** or the **Materials**. In all oral presentations or written publications concerning the **Licensed Products** or the **Materials**, the **Licensee** shall acknowledge the contribution by the named inventors to the **Licensed Products** or the **Materials**, unless requested otherwise by the **IC** or the named inventors.

14. The **Licensee** agrees to submit in confidence a final report to the **IC** within thirty (30) days of termination or expiration of this **Agreement** outlining in general its results of commercial evaluation of the **Licensed Patent Rights**, the **Licensed Products**, or the **Materials** provided by this **Agreement**. The **Licensee** shall submit the report to the IC at the Mailing Address for **Agreement** notices indicated on the Signature Page. The **Licensee** may not be granted additional **IC** licenses if this final reporting requirement is not fulfilled.

15. The **IC** agrees, to the extent permitted by law, to treat the **Licensee's** written information about the **Licensed Patent Rights**, the **Licensed Products**, or the **Materials** that is submitted in the final report required under Paragraph 14 and stamped "CONFIDENTIAL" as commercial and financial information obtained from a person and as privileged and confidential, and any proposed disclosure of these records by the **IC** under the Freedom of Information Act (FOIA), 5 U.S.C. §552 shall be subject to the predisclosure notification requirements of 45 C.F.R. §5.65(d). Such confidentiality shall not extend to any part of the information that was previously known to the **IC**, that is or becomes publicly available, or that is disclosed to the **IC** by a third party without an obligation of confidentiality.

16. NO WARRANTIES, EXPRESS OR IMPLIED, ARE OFFERED AS TO THE FITNESS FOR ANY PURPOSE OF THE **MATERIALS** OR THE **LICENSED PRODUCTS** PROVIDED TO THE **LICENSEE** UNDER THIS **AGREEMENT**, OR THAT THE **LICENSED PATENT RIGHTS** MAY BE EXPLOITED WITHOUT INFRINGING OTHER PATENT RIGHTS. The **Licensee** accepts license rights to the **Licensed Patent Rights**, the **Licensed Products**, and the **Materials** "as is", and the **IC** does not offer any guarantee of any kind.

17. The **Licensee** agrees to indemnify and hold harmless the **IC** and the **Government** from any claims, costs, damages, or losses that may arise from the practice of the **Licensed Patent Rights** for actions by the Licensee or for which the **Licensee** may be responsible.

18. Neither party shall have any obligation to take any action with regard to an infringement of **Licensed Patent Rights** by a third party.

19. The **Licensee** agrees in its use of any **Materials** or the **Licensed Products** to comply with all applicable statutes, regulations, and guidelines, including **NIH** and **HHS** regulations and guidelines. The **Licensee** agrees not to use the **Materials** or the **Licensed Products** for research involving human subjects or clinical trials in the United States without complying with 21 C.F.R. Part 50 and 45 C.F.R. Part 46. The **Licensee** agrees not to use the **Materials** or the **Licensed Products** for research involving human subjects or clinical trials outside of the United States without notifying the **IC**, in writing, of such research or trials and complying with the applicable regulations of the appropriate national control authorities. Written notification to the **IC** of research involving human subjects or clinical trials outside of the United States shall be given no later than sixty (60) days prior to commencement of such research or trials.

20. This **Agreement** shall be construed in accordance with U.S. Federal law, as interpreted and applied by the U.S. Federal courts in the District of Columbia. Federal law and regulations shall preempt any conflicting or inconsistent provisions in this **Agreement**. The **Licensee** agrees to be subject to the jurisdiction of U.S. courts.

21. This **Agreement** constitutes the entire understanding of the **IC** and the **Licensee** and supersedes all prior agreements and understandings with respect to the **Licensed Patent Rights**, the **Materials** and the **Licensed Products**.

22. The provisions of this **Agreement** are severable, and in the event that any provision of this **Agreement** shall be determined to be invalid or unenforceable under any controlling body of law, the invalidity or unenforceability of any provision of this **Agreement**, shall not in any way affect the validity or enforceability of the remaining provisions of this **Agreement**.

23. Paragraphs 9, 10, 13, 14, 15, 16, 17 and 23 of this **Agreement** shall survive termination of this **Agreement**.

24. The terms and conditions of this **Agreement** shall, at the **IC's** sole option, be considered by the **IC** to be withdrawn from the **Licensee's** consideration and the terms and conditions of this **Agreement**, and the **Agreement** itself to be null and void, unless this **Agreement** is executed by the **Licensee** and a fully executed original is received by the **IC** within sixty (60) days from the date of the **IC** signature found at the Signature Page.

SIGNATURES BEGIN ON NEXT PAGE

IC COMMERCIAL EVALUATION LICENSE AGREEMENT

SIGNATURE PAGE

In Witness Whereof, the parties have executed this **Agreement** on the dates set forth below. Any communication or notice to be given shall be forwarded to the respective addresses listed below.

For the **IC:**

(b)(6)

6/18/18
Date

Michael R. Mowatt, Ph.D.
Director
Technology Transfer and Intellectual Property Office (TTIPO)
National Institute of Allergy and Infectious Diseases (NIAID)

Mailing Address or E-mail Address for **Agreement** notices and reports:

License Compliance and Administration
Monitoring & Enforcement
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For the **Licensee** (Upon, information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the **Licensee** made or referred to in this document are truthful and accurate.):
by:

(b)(6)

6/21/18
Date

Wendy Holman
CEO
Ridgeback Biotherapeutics LLC

I. Official and Mailing Address for **Agreement** notices for Financial notices (the **Licensee's** contact person for royalty payments):

Wendy Holman, CEO
Ridgeback Biotherapeutics LLC
(b)(6)
(b)(6) - Phone
- Fax
(b)(6)

Any false or misleading statements made, presented, or submitted to the **Government**, including any relevant omissions, under this **Agreement** and during the course of negotiation of this **Agreement** are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) and/or imprisonment).

APPENDIX A – SHIPPING INFORMATION

The Licensee's Shipping Contact: information or questions regarding shipping should be directed to the Licensee's Shipping Contact at:

Wendy Holman — Shipping Contact's Name

CEO — Title

Phone: (b)(6) Fax: (b)(6) E-mail: (b)(6)

Shipping Address: Name & Address to which Materials should be shipped (please be specific):

Ridgeback Biotherapeutics LLC
Company Name & Department

Address:

(b)(6)

The **Licensee's** shipping carrier and account number to be used for shipping purposes:

Federal Express account number: (b)(4)

APPENDIX B – ROYALTY PAYMENT OPTIONS

New Payment Options Effective March 2018

The License Number MUST appear on payments, reports and correspondence.

Credit and Debit Card Payments: Credit and debit card payments can be submitted for amounts up to $24,999. Submit your payment through the U.S. Treasury web site located at: **https://www.pay.gov/public/form/start/28680443.**

Automated Clearing House (ACH) for payments through U.S. banks only

The **IC** encourages its licensees to submit electronic funds transfer payments through the Automated Clearing House (ACH). Submit your ACH payment through the U.S. Treasury web site located at: https://www.pay.gov/public/form/startJ28680443. Please note that the IC "only" accepts ACH payments through this U.S. Treasury web site.

Electronic Funds Wire Transfers: The following account information is provided for wire payments. In order to process payment via Electronic Funds Wire Transfer sender MUST supply the following information within the transmission:

Drawn on a **U.S. bank account** via FEDWIRE:

Please provide the following instructions to your Financial Institution for the remittance of Fedwire payments to the **NIH ROYALTY FUND**.

Fedwire Field Tag	Fedwire Field Name	Required Information
{1510}	Type/Subtype	**1000**
{2000}	Amount	*(enter payment amount)*
{3400}	Receiver ABA routing number*	(b)(4)
{3400}	Receiver ABA short name	**TREAS NYC**
{3600}	Business Function Code	**CTR** (*or CTP*)
{4200}	Beneficiary Identifier (account number)	*(enter 12 digit gateway account #)* (b)(4)
{4200}	Beneficiary Name	*(enter agency name associated with the Beneficiary Identifier)* **DHHS / NIH** (b)(4)
{5000}	Originator	*(enter the name of the originator of the payment)* **COMPANY NAME**
{6000}	Originator to Beneficiary Information – Line 1	*(enter information to identify the purpose of the payment)* **ROYALTY**
{6000}	Originator to Beneficiary Information – Line 2	*(enter information to identify the purpose of the payment)* **LICENSE NUMBER**
{6000}	Originator to Beneficiary Information – Line 3	*(enter information to identify the purpose of the payment)* ***INVOICE NUMBER***
{6000}	Originator to Beneficiary Information – Line 4	*(enter information to identify the purpose of the payment)*

Fedwire Field Tag	Fedwire Field Name	Required Information
Notes: *The financial institution address for Treasury's routing number is 33 Liberty Street, New York, NY 10045.		

Agency Contacts: Office of Technology Transfer (OTT) (301) 496-7057 OTT-Royalties@mail.nih.gov

Drawn on a **foreign bank account** via FEDWIRE:

The following instructions pertain to the Fedwire Network. Deposits made in US Dollars (USD).

Should your remitter utilize a correspondent US domestic bank in transferring electronic funds, the following Fedwire instructions are applicable.

Fedwire Field Tag	Fedwire Field Name	Required Information
{1510}	Type/Subtype	**1000**
{2000}	Amount	*(enter payment amount)*
{3100}	Sender Bank ABA routing number	*(enter the US correspondent bank's ABA routing number)*
{3400}	Receiver ABA routing number*	(b)(4)
{3400}	Receiver ABA short name	**TREAS NYC**
{3600}	Business Function Code	**CTR** (*or CTP*)
{4200}	Beneficiary Identifier (account number)**	*(enter 12 digit gateway account #)* (b)(4)
{4200}	Beneficiary Name	*(enter agency name associated with the Beneficiary Identifier)* **DHHS / NIH** (b)(4)
{5000}	Originator	*(enter the name of the originator of the payment)* **COMPANY'S NAME**
{6000}	Originator to Beneficiary Information – Line 1	*(enter information to identify the purpose of the payment)* **ROYALTY**
{6000}	Originator to Beneficiary Information – Line 2	*(enter information to identify the purpose of the payment)* **LICENSE NUMBER**
{6000}	Originator to Beneficiary Information – Line 3	*(enter information to identify the purpose of the payment)* ***INVOICE NUMBER***
{6000}	Originator to Beneficiary Information – Line 4	*(enter information to identify the purpose of the payment)*
Notes: *The financial institution address for Treasury's routing number is 33 Liberty Street, New York, NY 10045. **Anything other than the 12 digit gateway account # will cause the Fedwire to be returned – **SWIFT CODE:** (b)(4)		

Agency Contacts:

Office of Technology Transfer (OTT) (301) 496-7057 OTT-Royalties@mail.nih.gov

Checks

All checks should be made payable to "NIH Patent Licensing"

Checks drawn on a **U.S. bank account** and sent by US Postal Service should be sent directly to the following address:

National Institutes of Health
P.O. Box 979071
St. Louis, MO 63197-9000

Checks drawn on a U.S. bank account and sent by **overnight or courier** should be sent to the following address:

US Bank
Government Lockbox SL-MO-C2GL
1005 Convention Plaza
St. Louis, MO 63101
Phone: 314-418-4087

Checks drawn on a **foreign bank account** should be sent directly to the following address:

National Institutes of Health
Office of Technology Transfer
License Compliance and Administration
Royalty Administration
6011 Executive Boulevard
Suite 325, MSC 7660
Rockville, Maryland 20852

PUBLIC HEALTH SERVICE

COMMERCIAL EVALUATION LICENSE AGREEMENT

This **Agreement** is based on the model Commercial Evaluation License Agreement adopted by the U.S. Public Health Service ("**PHS**") Technology Transfer Policy Board for use by components of the National Institutes of Health ("**NIH**"), the Centers for Disease Control and Prevention ("**CDC**"), and the Food and Drug Administration ("**FDA**"), which are agencies of the **PHS** within the Department of Health and Human Services ("**HHS**").

This Cover Page identifies the Parties to this **Agreement**:

The U.S. Department of Health and Human Services, as represented by
National Institute of Allergy and Infectious Diseases
an Institute or Center (hereinafter referred to as the "**IC**") of the
the National Institutes of Health

and

Mapp Biopharmaceutical, Inc.,
hereinafter referred to as the "**Licensee**",
having offices at 6160 Lusk Blvd #C200, San Diego, CA 92121,
created and operating under the laws of the State of Delaware.
Tax ID No.:_ 20-0037593

1. Definitions:

   (a) **"Government"** means the government of the United States of America.

   (b) **"Licensed Patent Rights"** means PCT or U.S. patent application(s) (including provisional patent application(s)) or patents and all foreign counterparts as follows: (i) U.S. Provisional Patent Application 62/080,094, filed 14 November 2014, entitled "Antibodies that Neutralize Ebola Virus and Uses Thereof", PHS Ref. No. E-278-2016, and (ii) US. Provisional Patent Application 62/087,087, flied 03 December 2014; PCT Application PCT/US2015/060733, filed 13 November 2015; US Patent Application 15/526,661, filed 12 May 2017; and EP Patent Application 15797815.6, filed 12 May 2017, entitled "Neutralizing Antibodies to Ebolavirus Glycoprotein and Their Use", PHS Ref. No. E-045-2015.

   (c) **"Materials"** (b)(4) including all progeny, subclones, or unmodified derivatives thereof.

   (d) **"Licensed Products"** means (b)(4) (b)(4) and **Materials** made by the **Licensee** within the scope of the **Licensed Patent Rights**.

   (e) **"Licensed Field of Use"** means (b)(4) (b)(4)

2. The **Licensee** desires to obtain a license to evaluate the commercial applications of the **Materials** and the **Licensed Products** and any inventions claimed in the **Licensed Patent Rights**.

3. The **Licensee** intends to evaluate the suitability for commercial development of inventions encompassed by the **Licensed Patent Rights**, **Materials** or **Licensed Products** in the **Licensed Field of Use**.

4. The **Licensee** represents that it has the facilities, personnel, and expertise to evaluate the commercial applications of the **Materials** and the **Licensed Products** and the inventions encompassed by the **Licensed Patent Rights**, and that it shall expend reasonable efforts and resources on research and development of potential commercial products using the **Materials** or the **Licensed Products** and the inventions encompassed by the **Licensed Patent Rights**.

5. The **IC** hereby grants to the **Licensee** a nonexclusive license for evaluation purposes only, within its research facilities, to make and use *but not to sell* the **Materials** or the **Licensed Products** and products and processes encompassed within the scope of a claim in the **Licensed Patent Rights** in the **Licensed Field of Use**. The **Licensee** agrees that any commercial or industrial use or sale of any such products or processes, including any formalized in-house screening programs, other than for evaluation purposes, shall be made only pursuant to the terms of a commercialization license to be negotiated in good faith by the parties. The rights provided herein are provided for the *evaluation of commercial applications only and not for commercial use*.

6. The **IC** agrees, after receipt and verification of the license issue royalty, as required by Paragraph 9(a), to provide the **Licensee** with samples of the **Materials**, as available, and to replace the **Materials**, as available, and at reasonable cost, in the event of their unintentional destruction. The **IC** shall provide the **Materials** to the **Licensee** at the **Licensee's** expense and as specified in Appendix A.

7. The **Licensee** agrees to retain control over the **Materials** and the **Licensed Products**, and not to distribute them to third parties without the prior written consent of the **IC**.

8. This **Agreement** does not preclude the **IC** from distributing the **Materials** or **Licensed Products** to third parties for research or commercial purposes.

9. In consideration of the grant in Paragraph 5:

   (a) The **Licensee** hereby agrees to pay the **IC** a license issue royalty of (b)(4) (b)(4) dollars (b)(4) and payment is due within sixty (60) days of the effective date of this **Agreement**.

   (b) This license issue royalty shall be paid in U.S. dollars and payment options are listed in Appendix B. For conversion of foreign currency to U.S. dollars, the conversion rate shall be the New York foreign exchange rate quoted in *The Wall Street Journal* on the day that the payment is due.

      i) Any loss of exchange, value, taxes, or other expenses incurred in the transfer or conversion to U.S. dollars shall be paid entirely by the **Licensee**; and

      ii) Additional royalties may be assessed by the **IC** on any payment that is more than ninety (90) days overdue at the rate of one percent (1%) per month. This one percent (1%) per month rate may be applied retroactively from the original due date until the date of receipt by the **IC** of the overdue payment and additional royalties. The payment of any additional royalties shall not prevent the **IC** from exercising any other rights it may have as a consequence of the lateness of any payment.

10. This **Agreement** shall become effective on the date when the last party to sign has executed this **Agreement**, unless the provisions of Paragraph 24 are not fulfilled, and shall expire (b)(4) months from its effective date. Within thirty (30) days of the termination or expiration of this **Agreement**, the **Licensee** shall return all **Materials** and **Licensed Products** to the **IC** or provide the **IC** with written certification of their destruction, unless the **Licensee** has executed a commercialization license for the **Licensed Patent Rights**.

11. In the event that the **Licensee** is in default in the performance of any material obligation under this **Agreement**, and if the default has not been remedied within ninety (90) days after the date of written notice of the default, the **IC** may terminate this **Agreement** by written notice.

12. The **Licensee** acknowledges that third parties also may be evaluating the **Licensed Patent Rights**, the **Licensed Products**, or the **Materials** for a variety of commercial purposes, and no guarantee can be made, should the **Licensee** apply for a license, that such a license would be available for any particular field of use. The **IC** agrees to notify the **Licensee** promptly if it receives from another company an exclusive license application in the **Licensed Field of Use**.

13. The **Licensee** is encouraged to publish the results of its research projects using the **Licensed Products** or the **Materials**. In all oral presentations or written publications concerning the **Licensed Products** or the **Materials**, the **Licensee** shall acknowledge the contribution by the named inventors to the **Licensed Products** or the **Materials**, unless requested otherwise by the **IC** or the named inventors.

14. The **Licensee** agrees to submit in confidence a final report to the **IC** within thirty (30) days of termination or expiration of this **Agreement** outlining in general its results of commercial evaluation of the **Licensed Patent Rights**, the **Licensed Products**, or the **Materials** provided by this **Agreement**. The **Licensee** shall submit the report to the **IC** at the Mailing Address for **Agreement** notices indicated on the Signature Page. The **Licensee** may not be granted additional **IC** licenses if this final reporting requirement is not fulfilled.

15. The **IC** agrees, to the extent permitted by law, to treat the **Licensee's** written information about the **Licensed Patent Rights**, the **Licensed Products**, or the **Materials** that is submitted in the final report required under Paragraph 14 and stamped "CONFIDENTIAL" as commercial and financial information obtained from a person and as privileged and confidential, and any proposed disclosure of these records by the **IC** under the Freedom of Information Act (FOIA), 5 U.S.C. §552 shall be subject to the predisclosure notification requirements of 45 C.F.R. §5.65(d). Such confidentiality shall not extend to any part of the information that was previously known to the **IC**, that is or becomes publicly available, or that is disclosed to the **IC** by a third party without an obligation of confidentiality.

16. NO WARRANTIES, EXPRESS OR IMPLIED, ARE OFFERED AS TO THE FITNESS FOR ANY PURPOSE OF THE **MATERIALS** OR THE **LICENSED PRODUCTS** PROVIDED TO THE **LICENSEE** UNDER THIS **AGREEMENT**, OR THAT THE **LICENSED PATENT RIGHTS** MAY BE EXPLOITED WITHOUT INFRINGING OTHER PATENT RIGHTS. The **Licensee** accepts license rights to the **Licensed Patent Rights**, the **Licensed Products**, and the **Materials** "as is", and the **IC** does not offer any guarantee of any kind.

17. The **Licensee** agrees to indemnify and hold harmless the **IC** and the **Government** from any claims, costs, damages, or losses that may arise from the practice of the **Licensed Patent Rights** or through the use of the **Licensed Products** or the **Materials**.

18. Neither party shall have any obligation to take any action with regard to an infringement of **Licensed Patent Rights** by a third party.

19. The **Licensee** agrees in its use of any **Materials** or the **Licensed Products** to comply with all applicable statutes, regulations, and guidelines, including **NIH** and **HHS** regulations and guidelines. The **Licensee** agrees not to use the **Materials** or the **Licensed Products** for research involving human subjects or clinical trials in the United States without complying with 21 C.F.R. Part 50 and 45 C.F.R. Part 46. The **Licensee** agrees not to use the **Materials** or the **Licensed Products** for research involving human subjects or clinical trials outside of the United States without notifying the **IC**, in writing, of such research or trials and complying with the applicable regulations of the appropriate national control authorities. Written notification to the **IC** of research involving human subjects or clinical trials outside of the United States shall be given no later than sixty (60) days prior to commencement of such research or trials.

20. This **Agreement** shall be construed in accordance with U.S. Federal law, as interpreted and applied by the U.S. Federal courts in the District of Columbia. Federal law and regulations shall preempt any conflicting or inconsistent provisions in this **Agreement**. The **Licensee** agrees to be subject to the jurisdiction of U.S. courts.

21. This **Agreement** constitutes the entire understanding of the **IC** and the **Licensee** and supersedes all prior agreements and understandings with respect to the **Licensed Patent Rights**, the **Materials** and the **Licensed Products**.

22. The provisions of this **Agreement** are severable, and in the event that any provision of this **Agreement** shall be determined to be invalid or unenforceable under any controlling body of law, the invalidity or unenforceability of any provision of this **Agreement**, shall not in any way affect the validity or enforceability of the remaining provisions of this **Agreement**.

23. Paragraphs 9, 10, 13, 14, 15, 16, 17 and 23 of this **Agreement** shall survive termination of this **Agreement**.

24. The terms and conditions of this **Agreement** shall, at the **IC's** sole option, be considered by the **IC** to be withdrawn from the **Licensee's** consideration and the terms and conditions of this **Agreement**, and the **Agreement** itself to be null and void, unless this **Agreement** is executed by the **Licensee** and a fully executed original is received by the **IC** within sixty (60) days from the date of the **IC** signature found at the Signature Page.

SIGNATURES BEGIN ON NEXT PAGE

IC COMMERCIAL EVALUATION LICENSE AGREEMENT

SIGNATURE PAGE

In Witness Whereof, the parties have executed this **Agreement** on the dates set forth below. Any communication or notice to be given shall be forwarded to the respective addresses listed below.

For the **IC**:

(b)(6)

Mich

7/3/18
Date

Director
Technology Transfer and Intellectual Property Office (TTIPO)
National Institute of Allergy and Infectious Diseases (NIAID)

Mailing Address or E-mail Address for **Agreement** notices and reports:

License Compliance and Administration
Monitoring & Enforcement
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For the **Licensee** (Upon, information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the **Licensee** made or referred to in this document are truthful and accurate.):
by:

(b)(6)

Larry Zeitlin

07-05-2018
Date

President
Mapp Biopharmaceutical, Inc.

I. Official and Mailing Address for **Agreement** notices for Financial notices (the **Licensee's** contact person for royalty payments):

Larry Zeitlin
President
Mapp Biopharmaceutical, Inc.
6160 Lusk Blvd #C200
San Diego, CA 92121
Ph: (b)(6)
Email: (b)(6)

Any false or misleading statements made, presented, or submitted to the **Government**, including any relevant omissions, under this **Agreement** and during the course of negotiation of this **Agreement** are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) and/or imprisonment).

APPENDIX A – SHIPPING INFORMATION

The Licensee's Shipping Contact: information or questions regarding shipping should be directed to the Licensee's Shipping Contact at:

Larry Zeitlin — President
Shipping Contact's Name — Title

(b)(6) Fax: E-mail: (b)(6)

Shipping Address: Name & Address to which Materials should be shipped (please be specific):

Larry Zeitlin, Ph.D., Mapp Biopharmaceutical, Inc.
Company Name & Department

Address:

6160 Lusk Blvd #C105
San Diego, CA 92121

The **Licensee's** shipping carrier and account number to be used for shipping purposes:

FEDEX Acct (b)(4)

APPENDIX B – ROYALTY PAYMENT OPTIONS

New Payment Options Effective March 2018

The License Number MUST appear on payments, reports and correspondence.

Credit and Debit Card Payments: Credit and debit card payments can be submitted for amounts up to $24,999. Submit your payment through the U.S. Treasury web site located at: **https://www.pay.gov/public/form/start/28680443.**

Automated Clearing House (ACH) for payments through U.S. banks only

The **IC** encourages its licensees to submit electronic funds transfer payments through the Automated Clearing House (ACH). Submit your ACH payment through the U.S. Treasury web site located at: https://www.pay.gov/public/form/startJ28680443. Please note that the IC "only" accepts ACH payments through this U.S. Treasury web site.

Electronic Funds Wire Transfers: The following account information is provided for wire payments. In order to process payment via Electronic Funds Wire Transfer sender MUST supply the following information within the transmission:

Drawn on a **U.S. bank account** via FEDWIRE:

Please provide the following instructions to your Financial Institution for the remittance of Fedwire payments to the **NIH ROYALTY FUND**.

Fedwire Field Tag	Fedwire Field Name	Required Information
{1510}	Type/Subtype	**1000**
{2000}	Amount	*(enter payment amount)*
{3400}	Receiver ABA routing number*	(b)(4)
{3400}	Receiver ABA short name	**TREAS NYC**
{3600}	Business Function Code	**CTR** (*or CTP*)
{4200}	Beneficiary Identifier (account number)	*(enter 12 digit gateway account #)* (b)(4)
{4200}	Beneficiary Name	*(enter agency name associated with the Beneficiary Identifier)* **DHHS / NIH** (b)(4)
{5000}	Originator	*(enter the name of the originator of the payment)* **COMPANY NAME**
{6000}	Originator to Beneficiary Information – Line 1	*(enter information to identify the purpose of the payment)* **ROYALTY**
{6000}	Originator to Beneficiary Information – Line 2	*(enter information to identify the purpose of the payment)* **LICENSE NUMBER**
{6000}	Originator to Beneficiary Information – Line 3	*(enter information to identify the purpose of the payment)* ***INVOICE NUMBER***
{6000}	Originator to Beneficiary Information – Line 4	*(enter information to identify the purpose of the payment)*

Fedwire Field Tag	Fedwire Field Name	Required Information
Notes: *The financial institution address for Treasury's routing number is 33 Liberty Street, New York, NY 10045.		

Agency Contacts: Office of Technology Transfer (OTT) (301) 496-7057 OTT-Royalties@mail.nih.gov

Drawn on a **foreign bank account** via FEDWIRE:

The following instructions pertain to the Fedwire Network. Deposits made in US Dollars (USD).

Should your remitter utilize a correspondent US domestic bank in transferring electronic funds, the following Fedwire instructions are applicable.

Fedwire Field Tag	Fedwire Field Name	Required Information
{1510}	Type/Subtype	**1000**
{2000}	Amount	*(enter payment amount)*
{3100}	Sender Bank ABA routing number	*(enter the US correspondent bank's ABA routing number)*
{3400}	Receiver ABA routing number*	(b)(4)
{3400}	Receiver ABA short name	**TREAS NYC**
{3600}	Business Function Code	**CTR** *(or CTP)*
{4200}	Beneficiary Identifier (account number)**	*(enter 12 digit gateway account #)* (b)(4)
{4200}	Beneficiary Name	*(enter agency name associated with the Beneficiary Identifier)* **DHHS / NIH** (b)(4)
{5000}	Originator	*(enter the name of the originator of the payment)* **COMPANY'S NAME**
{6000}	Originator to Beneficiary Information – Line 1	*(enter information to identify the purpose of the payment)* **ROYALTY**
{6000}	Originator to Beneficiary Information – Line 2	*(enter information to identify the purpose of the payment)* **LICENSE NUMBER**
{6000}	Originator to Beneficiary Information – Line 3	*(enter information to identify the purpose of the payment)* ***INVOICE NUMBER***
{6000}	Originator to Beneficiary Information – Line 4	*(enter information to identify the purpose of the payment)*
Notes: *The financial institution address for Treasury's routing number is 33 Liberty Street, New York, NY 10045. **Anything other than the 12 digit gateway account # will cause the Fedwire to be returned – **SWIFT CODE:** (b)(4)		

Agency Contacts:

Office of Technology Transfer (OTT) (301) 496-7057 OTT-Royalties@mail.nih.gov

Checks

All checks should be made payable to "NIH Patent Licensing"

Checks drawn on a **U.S. bank account** and sent by US Postal Service should be sent directly to the following address:

National Institutes of Health
P.O. Box 979071
St. Louis, MO 63197-9000

Checks drawn on a U.S. bank account and sent by **overnight or courier** should be sent to the following address:

US Bank
Government Lockbox SL-MO-C2GL
1005 Convention Plaza
St. Louis, MO 63101
Phone: 314-418-4087

Checks drawn on a **foreign bank account** should be sent directly to the following address:

National Institutes of Health
Office of Technology Transfer
License Compliance and Administration
Royalty Administration
6011 Executive Boulevard
Suite 325, MSC 7660
Rockville, Maryland 20852